PHEASANTS AND COVERT SHOOTING

AYMER MAXWELL

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THE RISE

PHEASANTS AND COVERT SHOOTING

BY

CAPTAIN AYMER MAXWELL

AUTHOR OF 'PARTRIDGES AND PARTRIDGE MANORS'

LONDON

ADAM AND CHARLES BLACK

1913

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PREFACE

THE writer makes no apology for this book; the many reviewers who found it in their hearts to speak well of his volume on the partridge must in some degree share the responsibility for this attempt to treat of the pheasant after the same fashion, since without their words of kindly encouragement, he would scarce have dared to face the public again with no new wares to offer.

Should these pages perchance prove a useful reference to those who have an interest in this branch of sport, their existence will have been justified, and the writer fully rewarded; should they merely serve to while away an empty half-hour by reason of being tolerably light reading, he will yet be content. Only if they be

found wanting alike in matter and manner, and the artist's share alone be deemed worthy of a passing glance, will the hours of writing seem barren to look back on.

With modest hope, then, of fair weather does this little venture put forth on the vast ocean of contemporary literature.

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PHEASANTS AND COVERT SHOOTING

CHAPTER I

THE PHEASANT FAMILY

WHILE the works[1] of the two leading authorities on this branch of ornithology are still in the press, and not yet available for the enjoyment of happy mortals who can afford to possess such beautiful but costly volumes as these bid fair to be, humbler writers have to exercise singular discretion in dealing with the place assigned by science to the birds with

[1] The works referred to are Mr. C. William Beebe's magnificent monograph on the Phasianidae, which is being produced under the auspices of the New York Zoological Society, and Mr. Ogilvie Grant's chapters on the natural history of our game birds in a forthcoming *édition de luxe* on shooting.

whom they are better acquainted with by field and covert than in museum and cabinet. Still without entering into the niceties of specific and subspecific rank—pitfalls for the unwary which abound when dealing with the family of pheasants—it would not seem amiss—in a work professedly beneath the notice of the scientist—to marshal the various kinds of pheasants which fall to be considered in their relations to sport, in a more or less orderly array, which may not lack interest for those who may only know them as charges committed to their care on the rearing-field.

If we adopt the classification of the learned Dr. Gadow, we may come to our pheasants as follows :—

DIVISION—NEORNITHES CARINATAE

(comprising all existing forms of bird life except the Ratites or flightless birds).

ORDER GALLIFORMES

(Members of this order are distinguished by a globular crop, muscular gizzard, and short round

wings, and include—besides the family we have to deal with—the 'Button-quails' of Anglo-Indians, the mound builders of Australasia, the handsome Curassows of S. America, and the curious Hoatzin or 'stinking pheasant' of Guiana and Brazil, whose unique anatomy proved a veritable bone of contention among the learned, until he was accorded the honour of a Sub-Order all to himself.)

Family Phasianidae,

comprising Guinea-fowls, turkeys, partridges, grouse, and pheasants.

Among the members of this family are numbered the true pheasants (genus *Phasianus*).

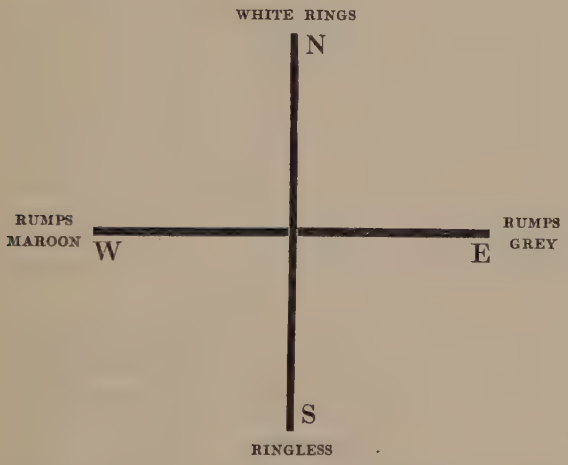
Natives of Asia, and living in a country of wide river basins each completely shut off from the next by mighty mountain range or barren desert of sand-dunes, they can all probably claim a distant ancestor in common, long isolation having resulted in fixing each chance variation from the original type, which free intercommunication would serve to completely obliterate in a few generations.

Of the nineteen kinds of true pheasants

mentioned here, seventeen are easily recognized by the crown of the head being green; in covert or in captivity these will all interbreed freely with fertile offspring, the original parent, with all his dignity of English and Latin names, being soon merged in some perfectly healthy and prolific form of mongrel. The remaining two, the copper pheasant of Japan, and the Reeves pheasant of N.W. China, with reddish and white crown to the head respectively, are the exceptions to this general rule. They differ very much in appearance from the rest of the true pheasants, and although they will interbreed with them (as indeed will many other allied species commonly known as pheasants, but not entitled to the scientific designation of "Phasianus," such as the well-known Gold, Silver, and Argus pheasants), their offspring is not usually fertile, and the cross soon disappears.

It may be of interest to note that all the typical pheasants given in the

following list vary in form more or less consistently in accordance with their geographical distribution,[1] the tendencies in variation being clearly indicated in the accompanying diagram.



We can lay no claim to exactitude in the nomenclature of pheasants, nor can the following list be taken as any authority on correct classification: the seventeen

[1] Given on the authority of Mr. Ogilvie Grant of the British Museum, who has long made the natural history of game birds his special province in the field of ornithological research.

species enumerated are named and arranged from standard works on ornithology, and the apparent official look of a regular table is due solely to a desire to facilitate reference and comparison, which becomes difficult when the matter is merged in the general body of the text.

Scientists into whose hands this book may chance to fall will doubtless find sins alike of commission as of omission; we have no part in their bewildering controversies, only wishing to give, as matter of some interest to those who have chiefly to deal with pheasants in their relations to sport, a rough and ready guide to the various members of the family, with some clue to the differences by which they may be distinguished, and a note of whence they came.

It would be quite beside the mark, in a work of this nature, to embark on any attempt to describe the plumage of the pheasant; nor in any case do the intricacies of colour his brilliant garb presents admit of clear rendering in words. Unfortu-

nately the mongrel pheasant which we all know best conforms to no one standard which would serve as the type by which we might indicate the varying forms; the common cock of our coverts is usually a passable imitation of the Chinese bird; but the old black-necked or common pheasant is very rarely to be met with; the occasional ringless cock almost invariably lacking the distinctive brown wing coverts and maroon rump.

The two parents of our native mongrel are therefore taken as typical, one of each group into which the green-headed pheasants may be divided. No description of any species is attempted; only the particulars wherein he differs from the type of the group being briefly indicated.

[TABLE

SOUTHERN FORMS. TYPE OF P. COLCHICUS.

1. Common pheasant	Phasianus	Colchicus		Caspian to S.E. Europe
2. Persian pheasant	Phas.	Colch.	Persicus	Persia
3. Prince of Wales pheasant	,,	,,	Principalis	N.E. Persia and N.W. Afghanistan
4. Oxus pheasant	,,	,,	Chrysomelus	Oxus Valley, W. Turkestan
5. Siberian pheasant	,,	,,	Tarimensis	Tarim valley, E. Turkestan
6. Zerafshan pheasant	,,	,,	Zerafshanicus	Zarafshan valley, Bokhara
7. Shaw's pheasant	,,	,,	Shawi	East Turkestan
8. Mongolian pheasant	,,	,,	Mongolicus	Mongolia

NORTHERN FORMS. TYPE OF P. COLCHICUS TORQUATUS.

9. Chinese pheasant	Phas.	Colch.	Torquatus	Manchuria; Mongolia; E. China
10. Stone's pheasant	,,	,,	Elegans	Western China
11. Tibetan pheasant	,,	,,	Vlangali	Tsaidam marshes, N.E. Tibet
12. Prejvalsky's pheasant	,,	,,	Strauchi	Province of Kansu, N. China
13. Chinese ringless pheasant	,,	,,	Decollatus	Western China
14. Satschen pheasant	,,	,,	Satschvensis	S. of desert of Gobi, Mongolia
15. Formosan pheasant	,,	,,	Formosanus	Island of Formosa
16. Hagenbeck's pheasant	,,	,,	Hagenbecki	Kobdo valley, N.W. Mongolia
17. Japanese pheasant	,,	,,	Versicolor	The three southern Islands of Japan

IE TYPE OF COLCHICUS

TINGUISHING FEATURES OF COCK.	DISTINGUISHING FEATURES OF HEN.
e of group: no neck ring; sandy-brown wing coverts; maroon-red rump with purple gloss.	Type for hens of both northern and southern forms: sandy-brown plumage, barred with black; *one* buff marking on rump feathers.
rest to type; whitish wing coverts.	Practically identical with type.
itish wing coverts; bronze-red rump with no purple gloss.	Sandy-buff; paler than type; stronger black markings on breast.
itish-buff wing coverts; green-bronze rump; broad green bars on underside.	A light buff; much paler than type; stronger black markings on breast.
f wing coverts; greenish rump.	A light buff; much paler than type.
itish wing coverts; red rump; plain brown scapulars.	Sandy-buff; paler than type; stronger black markings on breast.
itish-buff wing coverts; yellowish-brown rump.	A light buff; much paler than type.
ad white neck ring; whitish wing coverts; dark maroon rump; throat bronze-red.	Larger and much paler than type; *two* narrow and clearly outlined buff markings on rump feathers.
e of group: white neck ring; silver-grey wing coverts; flanks orange-buff; greenish rump.	Closely resembling type, but with *two* buff markings of very irregular shape on rump feathers.
neck ring; greenish-grey wing coverts; flanks dull orange-red with purple gloss; chest dark green.	General colour of type; throat white; under-parts whitish-buff barred with black; feathers of neck and mantle tipped with dark green instead of violet.
neck ring; greenish-grey wing coverts; rump bluish-slate; flanks golden buff.	General colour of type; under-parts pale buff with faint black markings.
neck ring; greenish-grey wing coverts; rump bluish-slate; chest orange-red.	General colour of type; same differences as *P. elegans*.
neck ring; crown of head much darker green than the type.	General colour of type; same differences as *P. elegans*; more strongly marked with black on back.
pale edition of the type; more purple and green on under-parts.	Paler than type; a light buff; chin and throat pure white.
nks pale primrose; broad purple-green margin to feathers.	Closely resembling type; same differences as Chinese pheasant but darker breast markings.
g coverts blue-grey; neck ring very broad; rump mottled.	Closely resembling type but larger.
neck ring; small and dark; slate-green rump; all under-parts deep green.	Darker and smaller than type; greenish tinge to head and neck; markings stronger.

This group is already sufficiently formidable in numbers, yet would still admit of further extension by the inclusion of nearly as many again less clearly defined species to which naturalists allow the dignity of a name. There is often too much matter of purely scientific interest given place in books ostensibly written for those who care for sport—we trust that in these pages the limit in this respect has not been exceeded—and patient readers may be glad to find that with this bare notice of their existence, all but five of this long tale of pheasants are dismissed from our count, having little value for us as birds of sport, either because their homes are so distant and difficult of access as to make free importation impossible, or are rare birds in their own countries, or else have no special features to commend them to our notice.

Only Hagenbeck's pheasant seems to deserve a word in passing; this is a truly magnificent bird of a type familiar to us all—Mr. Millais terms it a glorified edition

of *torquatus*—and nothing but his prohibitive cost under existing conditions rules him out of the count of our desirable game birds.

The five which have established firm foothold in our coverts are the Common, Chinese, Japanese, Mongolian and Prince of Wales pheasants, to which short list of true green-headed pheasants there should be added the white-polled Reeves.

The tale is then complete; there are many other ornamental species which may serve to grace our parks and shrubberies with the brilliance of their exotic plumage, but the half-dozen mentioned above can alone be considered of any value for sport. It has indeed been customary of late for writers on the subject to include several other pheasants among those suitable for game coverts as opposed to birds only fitted for the aviary; and in at least one standard work, compiled and edited by some of the leading authorities of the day,[1] there may be found quite a consider-

[1] The *Encyclopedia of Sport.*

able list of little-known pheasants, deemed worthy of serious attention by game preservers in this country.

Having little faith in these recommendations, and yet wishing to be sure of his ground before challenging the conclusions of such accepted authorities on game birds and their habits as Mr. Walter Rothschild and Mr. Tegetmeier, the writer sought the opinion of one whose knowledge of the ways of sport is only surpassed by her intimate acquaintance with every aspect of bird life. In answer to his queries, the Duchess of Bedford most kindly sent him the following notes on the various pheasants, which have at different times been given their liberty at Woburn Abbey :—

The Reeves Pheasants have done very well at Woburn, but they are uncertain layers. Last year there were hardly any eggs. In hilly country we consider them splendid birds for sporting purposes, as they rise well, come early in the beat and singly. They are not, however, disposed to allow themselves to be driven into a corner like the Common Pheasant, and therefore may not be favourably looked upon by keepers.

We have shot as many as 30 cocks in a day at Woburn. The hens get shot very freely in mistake for common cocks by those who are unaccustomed to distinguishing them.

We have tried many other species of pheasants, but with the exception of Mongolians and *P. versicolor*, none are of any use for sporting purposes.

This failed to set the mind entirely at rest, for there was no mention made of such birds as the Copper or Soemerring's pheasant and the Monaul, both of which have been freely praised for their sporting qualities by writers whose opinion is entitled to respect, and by them warmly commended for introduction to our game coverts.

The writer therefore ventured to approach the same authority once more on the subject, receiving in reply the following letter :—

April 11, 1912.

In your first letter you asked me to tell you the result of any experiments we had made with pheasants which were useful from a *sporting* point of view. I therefore only mentioned those which could be regarded as useful for sport in this

country. Amongst these I should certainly not include Soemerring's or the Monaul. Both are very low flyers of the 'skimming' order, and could only be regarded as 'sporting' where they afford the difficult shots they present in their own native hills.

The Monauls did not do well with us, and though some of the adults lived a long time, they did not rear their young, and died out.

The Soemerring Pheasant is an expensive bird, and is not imported in large numbers. We have very few; they have bred with us, but have not increased.

The Lineated and Kalij Pheasants do not increase much, but have done well on the whole.

The Elliot's Pheasant breeds and maintains itself, but, like Soemerring's, is no use from the sporting point of view.

We have not tried Hagenbeck's Pheasant or the Formosan.

We have had the following pheasants at Woburn :—

Reeves.	Lineated.	Tragopans.
Versicolor.	Monaul.	Koklas.
Mongolian.	Ellioti.	Cheer.
Amherst.	Soemerring.	Crossoptilon.
Kalij.	Prince of Wales.	

This should serve to set the matter beyond doubt; and finally dispose of any pretensions advanced for aviary pheasants

to be classed among our game birds. The question is not perhaps one of any general interest, and may seem to have been given more space than its importance would warrant, for most of us will rather make the best of what pheasants we have than 'fly to others that we wot not of.' Still it is as well that good cause should be shown for deliberate omissions from the commonly accepted lists of pheasants suitable for sport in this country, and further a word in season might be of service to any contemplating the costly experiment of introducing new birds to stock their coverts, to whom the writers already mentioned could only prove misleading.

In the latest work on pheasants, published within the last few months,[1] the Amherst pheasant is termed 'a most useful addition to the coverts,' being given together with Soemerring's and the Reeves, as suitable to cross with our native stock, the former by way of

[1] *Pheasants in Covert and Aviary,* by F. J. Barton (1912).

improving the brilliancy of plumage, the latter to augment the strength and speed of flight.

To put it mildly, any such experiments are not likely to prove conducive to the welfare of a shoot, the uncertain production of infertile hybrids being no very desirable end to attain. The Amherst cock in full glory of jewelled sheen looks a prince among birds, and the writer of the work in question can only have been dazzled by his singular beauty when he set him down as of any value whatsoever for the purposes of sport in England.

The common pheasant, now so uncommon in this country, except as partner in a joint-stock concern, that we would rather call him Colchican, was introduced into these islands by persons unknown, Phœnician, Roman, or Saxon, before the Christian era was a thousand years old. Both his English and Latin names are derived from the original home assigned him by tradition, the one from the river Phasis, the other—*colchicus*—from the

THE COMMON PHEASANT

district of Colchis, through which the Phasis flows into the Black Sea.

The common pheasant remained in undisturbed possession of our woods and heaths until the end of the eighteenth century, when the ring-necked pheasant (*torquatus*) was introduced from Southern China.

Writing in 1795, Bewick notes that he has seen the newcomer in the neighbourhood of Alnwick, where they had been turned down by the Duke of Northumberland, adding that "it is much to be regretted that this beautiful breed is likely soon to be destroyed by those who pursue every species of game with an avaricious and indiscriminating rapacity."

His prediction was strangely falsified; the Chinese bird proved more than capable of holding his own, increasing and spreading throughout the country during the last century, mingling freely with the older black-neck stock, and eventually becoming the predominant partner in the resulting cross, by which our woods

were, until lately, almost exclusively tenanted.

The Japanese pheasant (*P. versicolor*) was first brought into this country in 1840, the original birds being sent to the Earl of Derby by the King of Italy. This is the smallest of his race, due, as Mr. Millais points out, to long isolation in the islands of Japan. Among our other pheasants, he is easily recognized by his darker plumage of varying shades of green, bronze, and blue. The pure *versicolor* is not hardy enough to withstand our damp climate, but crosses between Japanese and Chinese or Mongolian pheasants have found favour with many. Like other hybrids, they are often larger than either parent; the one feature of this cross being the production of a bird perhaps more beautiful than any natural species.

The Japanese strain was well known in East Anglian coverts fifty years ago, but was lost soon after, remained almost entirely neglected for many years, and has

only lately come once more into popular favour. It is not persistent, and dies out in a few generations unless fresh blood be constantly introduced. Nor has this strain any marked advantage either in rearing-field or covert: the Japanese cross has often been praised of late at the expense of our English birds, but the reason is not very evident.

The pure Japanese pheasant is certainly a more difficult bird to rear than perhaps any of the others, the hens being late and not very prolific layers.

First cross Japanese have the reputation of showing one tendency on shooting days—more commonly seen among wild-bred birds than any hand-reared hybrids—the disposition to take wing readily when alarmed, instead of all running on in front of the beaters. There is no reason to suppose that cocks of the first cross are sterile, as has been commonly stated.

The Mongolian pheasants first arrived in this country about the beginning of this century, under the auspices of Mr.

Carl Hagenbeck. They attained immense popularity, largely due to the efforts of Mr. C. E. Russell, who started a Mongolian game farm in the south of England, and carried on a large business for several years. They were constantly praised as being at once larger, hardier, stronger on the wing, better on rearing-field, in covert, and on the table, slower to stray and quicker to rise before the beaters than our own birds.

The first cross Mongolians are certainly birds of remarkable size and weight, though how far this would seem conducive to high flying must be at least doubtful, in the absence of any marked development of wing to compensate for increase of bulk. For the rest, the writer can only offer an opinion that the Mongolian crosses are, generally speaking, neither easier to rear, more or less prone to stray, nor differ appreciably in any other particular from the common hybrids of the country.

It would indeed appear that Mongolians

thrive better in hot summers, and are therefore more suited to southern counties than for Scotland and the north country; in fact one might almost, without fear of exaggeration, describe the Mongolian as a bird of delicate constitution, when compared with the other members of the family. He is a peaceable bird too, and when turned down in small numbers may sometimes be driven forth by the pheasants in possession, and may thus come by a bad name for straying habits, as little justified under fair conditions as the singular stay-at-home tendencies claimed for him by prejudiced admirers.

While one in ten pure Mongolian cocks are spurless, all are distinguished from all other covert species by dispensing with the customary male adornment of ear-tufts in spring. The Mongolian strain exercises an enduring influence on stock, and many years after any have been turned out, birds will be killed bearing the distinctive mark of the blood—the bronze-red throat-feather.

A new pheasant was discovered by the Afghan Boundary Commission of 1884–5, more than 400 of this hitherto unknown species being shot on a march of 30 miles up the swampy bed of a river. This was named the Prince of Wales pheasant (*P. principalis*), for whose presence in this country we are indebted to the enterprise of Colonel Sunderland.

The experiment of importing eggs was first tried, but this proved—in the words of its author—'a dismal and costly failure.' The Colonel then abandoned half-measures, and in 1902 went himself to the East; here he succeeded in collecting a number of cocks and hens which he transported in safety to Conholt Park in Hampshire. They arrived in February 1903, and many young birds were safely reared the same year, one pen of hens averaging 30 fertile eggs apiece.

This ringless pheasant is much of a size with our old black-neck, differing chiefly in having the white wing coverts of the Mongolian, and a bronze-red rump.

Though less familiar to game-preservers than the much-advertised Mongolian, the Prince of Wales pheasant has certain qualities, grounded in solid fact, which should go far to recommend him to game-preservers in this country. Of him alone would it be reasonable to say that in some particulars he is better adapted for the purposes of sport and the trials of our island climate than the bird in possession.

Such a statement unsubstantiated has no value; there has already been too much written at large about non-straying, prolific high-fliers, of singular excellence on the table, and so forth. The Prince of Wales is then indubitably the wildest of the pheasants in preservation: the writer can vouch for this quality—and surely it is one befitting a bird of sport—from personal observation. The old cock, confined for seven years in an aviary, resents the approach of man as strongly as though he were fresh caught from the wild: and on many rearing-fields the shyness of the young birds is evident; so inherent is

their distrust of the human, that it becomes quite difficult to catch more than a glimpse of a scurrying little form, at a coop of Prince of Wales chicks but a few days old. That they are at least as prolific and easy to rear as any other pheasant is matter of common knowledge to any who have given them a trial; while they seem to thrive better than any of the others in wet seasons, as many pheasant rearers—with a few coops of Prince of Wales birds scattered among the rest—noticed particularly during the unkindly summer of the past year (1912).

Toleration of continued wet and damp is the best character a new pheasant can earn, sunless summers being practically unknown in the native countries of most of our recent introductions, and it is in this respect, if in no other, that the strain would seem to warrant a trial. Wet weather plays havoc among wild pheasants, and anything that may tend to fortify the race against its evil effects is worth careful consideration.

Lastly, the subject of this eulogy may claim to be a bird of singular activity. Only by seeing a pinioned Prince of Wales struggling to fly can the height to which he can rise off the ground be believed. Colonel Sunderland pinioned his young birds, leaving only two flight feathers. Thus equipped they flew with ease, and even when the remaining flight feathers were removed, some were still found to clear ten feet of wire, and get shot with the other pheasants.

The last member of our group is the Reeves or Bar-tailed pheasant, first brought to this country by Mr. Reeves, a China merchant, in 1831. It is quite distinct in appearance from the rest of the pheasants. The cock is a magnificent bird: head and neck white, with a broad black band round the eyes; back and breast bright Chinese yellow strongly pencilled with black, under-parts black: his boldly-barred tail, white, chestnut, and black, is some five times the length of his body: measurement from beak

to tip of tail, from six to seven feet. The hen is under three feet long, of which little more than a foot is devoted to tail; noticeably differing from other hen pheasants in increased size and white spotted mantle.

In giving the Reeves place among our pheasants of sport, stress must be laid on the fact that he has no value in coverts where any of the others will take up their quarters. He stands quite apart from the rest, a mountain dweller, a bird of rough hill wood and rugged places, and not a frequenter of swamp and river-bank in the valley below. He has thus no place in the game-coverts of the low country, for there he will either wander beyond the narrow confines of the home allotted to him, or else stay at home to drive away the other pheasants, and produce a race of infertile hybrids,[1] with a tendency to run for miles and a marked

[1] The rare instances of possibly fertile Reeves + Colchicus hybrids have only a scientific interest, and need not concern us here.

reluctance to rise more than a few feet from the ground.

The Reeves does not patiently endure the restrictions of a narrowly enclosed country; and it is only in the wilder parts of Britain, where the natural features are all on a larger scale, and rough woods of wide extent clothe the open hillsides, that he can find free scope for his wandering habits. Here cultivation is scarce, and ordinary pheasants either would not thrive, or could not be shown to advantage—the heavy stock required to cover the inevitable wastage in shooting a big wood often forbidding the attempt.

Many such places can be found in the Highlands of Scotland, the Border hills, the Lake country, and the mountains of Wales. Then no bird should show prettier sport; small days, perhaps, but days of hard work and difficult shooting in wild and beautiful setting; for the Reeves, when deprived of free use of his legs on rough and hilly ground, gets

on wing with startling rapidity, and will then fly as high and twice as quick as any other pheasant.[1]

Thus may the Reeves, who, when once firmly established, should require little or no human assistance to maintain his race, add a new feature of interest to woods now only tenanted by the occasional woodcock and the roe-deer.

Reeves pheasants were at one time reared in some numbers at Guisachan, in the wilds of Glen Affric, then the property of Lord Tweedmouth, and Mr. Millais has given—both with pen and pencil—charming records of the sport he enjoyed. Since this estate changed hands eight years ago, there has been but little rearing of pheasants. A few Reeves, however, are still reared every year, and are reported to be quite as easy to bring

[1] The writer can well remember a certain Reeves in the Island of Bute. He ran at great speed from the covert towards the gun; when within thirty yards the cock took wing, and was a high bird travelling apace, when shot straight overhead. He proved to be nearly a foot longer than his slayer, who is somewhat below the normal stature of man.

up by hand as any of the commoner varieties, the only fault imputed to them being a tendency to stray to lower grounds—a tendency quite at variance with the accepted habits of the bird, and one probably induced by lack of food or stress of weather, under the unfavourable conditions of a Highland winter.

Mr. Millais has kindly sent the following notes to the writer from his personal observation of the Reeves pheasants.

Scotland. The only places I know of where they are quite wild are Balmacaan and Guisachan in Inverness-shire. They were introduced to the former place by the Earl of Seafield about 1870. In the 'eighties they migrated to higher ground and over to the highest fir woods on Guisachan. There they increased rapidly, and the late Lord Tweedmouth set apart one day every November to shoot them. I shot there in November 1892, and we killed about 30.

I have elsewhere[1] described and figured their swift flight and method of stopping in mid-air when going at full speed to alight on the top of a Scots fir. There are now only a few at Balmacaan, as they keep a big stock of pheasants, and it is

[1] The *Field*, Feb. 1896; reproduced in Tegetmeier on "Pheasants."

thought that the Reeves cock drives away the common birds.

Reeves do best in Scotland on very high wooded ground with rough timber and deep heather.

England. I have seen a nice stock of Reeves at Woburn Abbey, and watched the cocks there fighting in spring. They scream and whistle, and then spring up about six feet into the air, each cock trying to strike the other on the head with his sharp spurs. They are, however, such skilled boxers that little damage is done.

Reeves cocks are impatient and savage in confinement, even with their own hens. I have seen a Reeves cock kill two hens in a few minutes, just because they were indifferent to his advances.

Ireland. The only place I know in Ireland where there is a wild stock of Reeves pheasants is The Lodge, Rosbrevor, County Down, the property of the Honourable Albert Canning. There the birds do remarkably well amongst old trees on the edge of rough heather, nesting among the fallen trees. Common pheasants, Amherst, and Golden live and feed wild there too, but keep to the lower woods. The Reeves find their own living, and only come down to the oak woods for acorns, etc., in winter. A peculiarity of their feeding is that they dig out every bulb of the wild bluebell.

As in China they will fly across the valley from one wooded top to the other—a fine sight.

They were introduced only a few years ago and now number about 150.

On the engrossing topic of the actual shooting value of these various pheasants and their hybrids, there has been perhaps more said to little purpose than on any other subject connected with shooting. All start with the same object, to make their pheasants fly higher and stronger than before; to effect their common purpose, some insist on the advantage of a cross with the Mongolian; others would have a dash of *versicolor* in the strain, others again will have nothing to say for our ring-necked stock, with or without new blood, but swear exclusively by the old race of ringless birds.

In good truth there is nothing in it; any healthy mongrel will fly as well as could be wished, if only he be given sufficient inducement: and it is hard to believe that the chance-come cross of our countryside is in this respect one whit inferior to any pure-bred stock or carefully selected strain. Old keepers cherish

an affection for the black-necked bird familiar to their childhood; those who have been at the considerable expense of importing a new species as a commercial venture will not be found slow to insist on its merits, whether for looks, edible qualities, non-straying propensities, stamina, or strength of wing: and that is about all there is to it.

It is really sufficiently ludicrous to realize that in the Austrian Empire there is a steady demand for English pheasants, and a large importation of guaranteed English eggs from this country: while to set off against this, we have at the same time a heavy cross traffic of real Hungarian black-necks, imported into this country to take the place of English pheasants in rearing-field and covert. The game-farmers may benefit by the increase of business, yet they must read many a customer's order with a smile for the foibles of fashion.

THE REEVES' PHEASANT

CHAPTER II

NATURAL HISTORY NOTES

All the five green-headed pheasants whose blood may be traced in the hybrid bird of our coverts have to all intents and purposes the same life-history; their means and methods of carrying on the business of existence differ in no particular of practical import, and so, in these rough notes, all the parent stocks and their numerous but nameless offspring may be included under the simple title of 'the pheasant.'

The pheasant then is naturally a bird of the valley, a dweller in underwood and thicket on the lower slopes of the hills, or in reedbed and rough growth along the water's edge. Disturbed on some excursion, the pheasant makes homewards, and

downwards, where a Reeves would set his face for his native hill.

His legs are strong and muscular as befits a bird who seeks his food, nests, and rears his young on the ground, with strong blunt claws well adapted for scratching in the earth, in which characteristic, as in many others, the pheasant betrays his kinship with the common hen of our poultry yards, from which, however, he differs markedly in his impatience of any attempts to make him share the life of man in complete domestication.

The wild jungle fowl, common parent of all our fancier's strains from Brahmas to Bantams, may be thoroughly tamed in a single generation, but though the pheasant from close and long-continued association may often acquire the familiarity that borders on contempt with the ways of man, yet the wild instinct is never more than dormant, and after generations of aviary life, the desire to go his own way through the world remains the birthright of each individual.

It is this persistent feature in his character that makes the pheasant so well adapted to the peculiar conditions of modern game preservation, for the taming influences of pen and rearing-field are more than half obliterated by the free life of the woods before shooting days begin, while during the last weeks of the season there can be little doubt as to the true wildness of the average hand-reared cock.

Where he is free to follow his own devices, the pheasant leaves his native wood with early morning, setting forth on foot to feed and roam all day, only taking wing to fly homewards when disturbed, or on his way back to roost at night. A lover of damp places, perhaps his favourite excursion is to follow the course of stream or burn, along which—if no restraining influence be exercised—he will often wander for miles, until ignorant or indifferent as to the way back, he seeks new lodgings at nightfall, and his old home sees him no more.

Unlike other game-birds pheasants are on the move all day in fine weather, keeping the sunny slopes of the hills, and only stopping occasionally to sun and dust themselves.

In rough and wet weather they would rather pass the day in the woods, if they can find there food, cover, and freedom from draught. They are most prone to stray far afield on some fine frosty morning after a spell of broken weather, which has kept them close to home.

The short round wings of the pheasant betray the bird off the ground, and unless headed off from home or pressed by imminent danger, pheasants would always choose to seek safety on *terra firma*, the hens by squatting close and trusting to their protective colouring, the cocks by running—and few birds can run further or faster.

The flight is strong but not sustained; on occasion individuals have been known to cross the Humber where its width is close on four miles, but as a rule a

pheasant fails in extended flight across water, settling after a few hundred yards, even when the surface of the water is ruffled, and there can be no reflection to make mistakes possible. Despite this and the fact that it is doubtful whether they can ever rise off the water, pheasants will commonly start flying across wide stretches of water without showing any misgivings as to their safe arrival somewhere, and to see a bevy of pheasants starting straight across the Atlantic for America is no unusual sight at places on the West coast, where the coverts often run down close to the sea.

Once in the water, the pheasant is no mean swimmer although probably incapable of any prolonged efforts. In this respect the Prince of Wales excels all the others, being almost amphibious in his habits among the marshy reed-grown swamps of his native Afghan Rivers. Nor are his performances in the water all on the surface. In 1870, a shooter on the West Moors near Wimborne noted

that a hard-hit pheasant to which his old pointer had stood fell into a deep pool and dived like a moor-hen, the pointer immediately diving in too and retrieving the bird under water. Again in 1864, an officer shooting near Shanghai dropped a wounded pheasant on the edge of a creek eight yards wide: the pheasant deliberately dived, swam across under water, scrambled out on the far side and departed, leaving his pursuer too much astonished to follow him.

The pheasant takes wing easily considering his bulk and the relatively small size of his wings; in this he is much aided by having strong muscular legs to take off from. The upwards flight is carried out by short, active strokes of the wings, helped by the large pectoral muscles. The height attained rarely exceeds 100 feet above the starting-point, and the pace is at best rather under forty miles an hour.

From the top of his flight, the pheasant glides down with set wings and expanded

tail to the spot where he wishes to settle. In a wood he uses the branches of the trees to break the force of his flight, while in the open he runs rapidly for several yards on alighting, before stopping to look about him. It is often said that the height of a pheasant's flight is entirely regulated by the height of the trees he has to surmount. This is by no means correct, for any pheasant flying home with visible reasons for alarm between him and his destination, will rise as high as he can in the intervening space, quite independently of any physical obstacles.

The voice of the cock-pheasant is so commonly heard in the land, that no attempt to render it on paper in uncouth phonetics is necessary. All the year round the pheasant greets the rising, and speeds the departing sun with his vocal efforts. On frosty mornings and in early spring one cock will often call and set every rival in the wood crowing in answer, a regular concert of cocks being also produced by any loud report, such as a

clap of thunder, a distant gun, or the firing of a blasting charge. At the season of mating, the cocks crow at any hour of day, drawing themselves up to their full height and beating their wings rapidly as they give vent to their feelings. When flushed after squatting in covert, the cock usually crows thrice as he rises. On the unwelcome appearance of a fox in covert, all the pheasants rise into the trees, whence they loudly resent the intruder's presence. When thus alarmed, the cocks cannot be justly said to crow; all bold defiance has left their note, and although the difference may not be set down in words, it is quite unmistakable when heard.[1]

One would expect wild creatures with many enemies abroad to seek their night's rest in silence, yet 'lights out' is a common call in the bird world; one need

[1] Inflections in the notes of birds are always difficult to explain. An observant gamekeeper well knows by the alarm note of a blackbird, whether the danger comes from above—a hawk, or below—a stoat, yet he would be put to it to say wherein lies the difference.

only instance our familiar friends the blackbird and the partridge, and in no bird is this trait more strongly marked than in the pheasant. For reasons best known to himself each cock in a covert seems desirous of advertizing to all and sundry the fact that he is about to retire for the night in a certain tree. It is not a habit exactly calculated to promote health or longevity in districts where poachers are many, though in winter it certainly helps the keeper to take ready count of his charges. Standing on the ground below, the cock looks upwards to his chosen perch, jerking his head forward with a repeated metallic note, followed by a succession of crows as he flies up and settles down on his branch.

The voice of the hen pheasant is less familiar, and has thus been described by a close observer of nature :[1]—

> The hen pheasant seems to have three distinct calls. The first may be described as a peevish

[1] *The Natural History of British Game Birds*, by Mr. J. G. Millais.

whistle, which she uses on being frightened or flushed. The second is only emitted when handled and under extreme fear, like the words "ee-ac, ee-ac." The third note is heard when two hens are fighting, as they often do in spring. They make a purring sound when angry or actually in fight. When about to engage in battle, two hens lower their tails, spread them, and walk round and round each other, uttering this strange note.

In the absence of any direct proof to the contrary, there seems every reason to suppose that among the wild races of pheasants in the East, the males fight for the mastery, lead away the hens they can win, and are as generally polygamous in their habits as we know them in this country.

The young cocks begin early in life to practise their parts for the lists of love. By September their first efforts to master the art of crowing may be heard, and from that month onwards they will fight by the hour together, crouching opposite each other, sparring and bobbing with their heads in absurd fashion, till one sees an opening and flies up suddenly to strike

downwards with his puny spurs at his opponent's head. This is but a make-believe; the buttons are still on the foils; only with March come the true combats of the males, shorter and sharper affairs altogether, in which the loser often takes serious hurt from the formidable spurs of an adult antagonist.

It was for long matter of regular belief that at this time of year the cocks sought out the hens, and—as a natural corollary—that any coverts with a sufficient stock of hens had all the essentials of success in the nesting season. The close and careful observation of more recent years has served to bring the truth of this assumption into question; the matter is not set beyond doubt, but to say that where the cocks were gathered together, there the hens would be found also, is probably at least as near the truth as the reverse.

Having by dint of arms won his right to sire his race, the cock walks all day with the four or five hens of his choice, stopping every now and then with low

crooning chuckle to draw their attention to some tit-bit he has discovered. By the end of March his courtship is in full swing: with great dignity of bearing and gait the cock then advances towards the object of his affections: following rigidly the prescribed customs of his kind, there is evident in every detail the intention to impress the magnificence of the male on the female observer.

As he approaches, every feather is set, the purple ear feathers erect and inclined outwards, the scarlet patch round the eye inflated, the eye itself unusually brilliant, while even the bone of the beak takes on a slightly brighter tint. At the actual moment of display the cock endeavours to dispose himself so that all his beauties may be visible at a single glance. Passing in front of the hen he stops, lowering and extending the wing next her, spreading out the tail and turning it over so as to take the eye, with neck lowered and curved, and head slightly inclined to show the ear ornaments. The hen often keeps

an appearance of studied indifference, during this performance, strolling on as though there were nothing of interest to make her pause; the cock, nowise abashed, then stalks on in front of her and begins all over again, finishing up by standing on tiptoe and crowing loudly with rapid clapping of the wings.

The time of mating over, the cock—with rare exceptions—takes himself off, leaving to the hen the whole burden of family life. She scratches out a slight hollow in the ground, usually more or less hidden by or in the shade of bramble, bracken or tussock of grass, lines this rough attempt at a nest with a few stems of grass or leaves, and lays therein from 8 to 15 of the familiar olive brown eggs, less commonly of a pale blue-green colour.

The practice of nesting in covert is less natural than induced by the general lack of growth outside in field and hedgerow during early spring; were her choice less restricted by circumstance, the hen would prefer some shelving, sunny bank with

enough cover overhead to throw a dappled shade over her sitting form.

Pampered birds in pen and aviary may often lay in March, but the wild hen rarely begins to fill her nest till the last week of April. She sits very close and her neutral tints make her hard to detect on the nest. Although the hen pheasant knows all the devices by which mothers in the bird world would seek to safeguard their precious eggs from their many enemies, yet there is a want of method in her care for her charges which would seem little short of criminal to that model mother the partridge, who never fails in a rigid observance of the precautions for safety that instinct—the acquired knowledge of many generations—prescribes for her guidance. Thus the pheasant, when she leaves her nest to seek food, as she does twice a day, in the early morning and about four in the afternoon, will sometimes cover up her eggs as carefully as could be wished, at other times leaving them open to take their chance of dis-

covery by passing vermin or poachers. In the same way she can never be relied on to take the trouble of flying on and off the nest, a wise means of saving the tell-tale trail, so sure a source of trouble where foxes are abroad.

The hen pheasant—doubtless made casual in her habits by the long-continued influences of the rearing-field — often shows a singular lack of method in her nesting arrangements. Two or three pheasants will often set up house together and lay twenty or thirty eggs in the same nest, with no thought as to what is to be done with them. They have at all times an unholy desire to crown the efforts of the partridge with a casual egg or two of their own; a sorry jest for the partridge, for although under normal conditions her own eggs would come out first, somehow the larger eggs seem to get most of the heat, the pheasant chicks hatch and are led away by the unfortunate foster-mother, while her own off-spring are left to perish in the shell.

Nor is the partridge the only bird whom she will thus honour with her unwelcome attentions. Hen pheasants have at different times been known to lay in the nests of capercailzie, greyhen, grouse, domestic fowl, landrail, wild duck, teal, owl and woodcock;[1] in the case of the first and four last named the experiment was foredoomed to failure; but instances are not wanting of the others hatching and taking charge of the little strangers. A hen pheasant has once been found sitting on a black bird's nest in a low thorn bush; the nest was full of newly hatched blackbirds, while on the ground beneath lay a single pheasant's egg[2]—a nice problem in domestic life, to which everyone must find their own solution.

Exceptional cases are from time to

[1] As recorded in the columns of the *The Field*, 1860, pp. 170, 183; 1865, pp. 420, 456; 1871, p. 321; 1874, p. 524; 1881, p. 797; 1883, p. 805; 1888, pp. 54, 509; 1893, p. 606; 1894, pp. 818, 877; 1897, p. 721; 1898, pp. 134, 227, 745; 1900, p. 734.

[2] Recorded in the pages of *Country Life*, May 18, 1907.

THE JAPANESE PHEASANT

time recorded of pheasants nesting on pollards, or in old nests of hawks and owls and deserted squirrels' dreys, sometimes at a height of thirty feet above the the ground. Equally exceptional are the instances of cock-pheasants taking on themselves the cares of a family, though there have been undoubted cases of cocks sitting, assisting the hen in charge of the brood, and even replacing her as guardian of the chicks when some ill-chance had removed her from the scene.

Before the nest is filled, the pheasant seldom takes the trouble to cover up her eggs, and then only lightly, while the partridge almost always covers her eggs with great care. Many pheasant eggs thus get spoiled by frost before the hen has begun to sit.

The rude scrape in which the first egg is laid is improved and given more semblance of a regular nest by the addition of leaves and feathers as the loiter—common term among keepers for the clutch of eggs—approaches

completion and the hen begins to get broody.

Like other game birds, the hen pheasant gives off little scent when she is sitting, though whether this protective faculty be due to actual—if unconscious—suppression of the scent, or rather to the feathers being kept motionless and close to the body, is not very clear. The strong odour of the fæces at this period would seem to support the theory that the scent is actually diverted from its usual channels, while the return of the scent shortly before hatching, when the feathers of the sitting bird are all ruffed up, certainly suggests nothing more obscure than the familiar instance on shooting days of the wounded bird unable to escape and seeking to efface itself by crouching motionless, and thus so often setting the keenest-nosed dogs at fault, in which case any actual suppression of scent can only be due to a conscious and voluntary effort on the part of the bird.

The awe-inspiring words which form

the everyday vocabulary of all sciences, and perhaps more than most of embryology—few unlearned minds would contemplate the breakfast egg with their wonted calm were they suddenly made aware of the fact that it was full of blastoderm and hypoblast — make it unwise to follow the process of incubation in the egg with any approach to scientific accuracy, yet a hint of the unseen changes so little known to those who may be handling and setting thousands of eggs every season, has—if no particular practical value—at least a certain interest to any one who likes to know the 'why and wherefore' of things.

At the time of fertilization the egg or ovum consists of a skin-covered globe of yellow yolk, traversed by a small funnel of white yolk on the top of which rests the germ of life. This germinal disk—as it is known from its shape—at once begins to break up into a number of cells, which step by step build up the complex mechanism of the embryo.[1] In the twenty hours

[1] Professor Alfred Newton, article on "Embryology."

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or so that divide this point in the proceedings from the actual laying of the egg—blunt end foremost, as one might not have supposed—the mantle of albumen or 'white,' the double skin which gives the egg its final size and shape, and the shell itself are added by successive deposits.

All this time the rounded cells of life have been breaking up and increasing apace, but now, exposed to the cold of the outer world their activity ceases until once more called into play by the warmth of incubation. In the first five days of this renewed activity the vital parts of the animal are all evolved, brain, eye, lungs, liver, stomach and nervous system; only, strangely enough, no marks by which one may know the bird have yet appeared; the embryo is still of a type common among mammals in general, and further is hardly to be distinguished from some of the reptiles at a similar stage of development.

Only on the sixth day do those changes begin to take place that shall determine

the bird from beast and reptile, wing, foot, crop and gizzard now first commencing to take form and shape, skull becoming bird-like and nose showing signs of developing into a beak. By the end of the first week matters are so far advanced that scientists can already detect the differences that distinguish the various orders or natural groups into which birds are divided.

On the ninth day feathers begin to protrude from the skin, covering most of the body four days later, although they are contained in thin horny sheaths until a day or two before hatching. During this, the second week of incubation, the generic characteristics or special distinguishing features of the family to which the bird belongs may be recognized.

The determination of sex is a fascinating problem, and although the laws which govern its operation have not as yet been established with any finality, still the recorded results of many recent experiments indicate a solution which fits in nicely

with the probable involuntary precautions of a race of wild creatures, living under natural conditions, to adjust their numbers to meet their circumstances.

The sex of the embryo in the egg is certainly determined within about ten days of fertilization. In all probability the cock has no say in the matter, nature relying alone on the condition of the hen —probably for some considerable time before fertilization, as well as during the shorter period after—to gauge what is best for the race. Thus if the hens be fat and well-liking about this time, increase is a sound business proposition for the race, and experiments under these conditions result in a large proportion of females among the offspring. If, however, the hens are spare and short of food, some limit must be set on production, potential mothers are at a discount, and a large majority of the chicks should prove to be cocks.

All birds fall into two classes by the manner of their birth; those that are

hatched blind, naked and helpless, dependent on the nest for shelter and their parents for food, having already absorbed into their system all the nourishment contained in the egg, and those that are born with open eyes, feathered bodies, active limbs, a wallet of food stored from the egg against immediate needs, and a strong desire to set about exploring the corner of the earth that they have inherited without further loss of time.

To the latter class — who naturally require a longer period of incubation to reach the higher stage of development to which they attain before leaving the egg —belong the pheasants. The hen takes a day or so longer than the partridge or the barn-door fowl to bring her eggs to hatching; she has been sitting three weeks before the chick thrusts its beak through the skin lining the inside of the egg, and begins to breathe the air contained in the space between this lining and the shell, the business of respiration having up to this point been carried on by a sort of bag

attached to, yet not actually forming part of the body of the chick.

Finally, on the twenty-third or twenty-fourth day, the chick has filed away a crack at the broad end of the egg with its hard 'egg tooth,' and casting off the dried and no longer useful remnants of the fold that enveloped it and the sack that used to do its breathing, steps out into the world.[1]

As soon as the chicks are dry, usually about twenty-four hours after hatching, the hen wanders off with the nide—the correct term in the parlance of sport for a family of pheasants, said parlance having rather fallen into disuse since the days when men spoke of a 'congregation' of plovers, or a 'murmuration' of starlings—her active little charges finding their living among ants, insects, worms and small molluscs.

The pheasant chick is certainly a hardier member of the community than the

[1] The changes inside the egg are as given in Foster and Balfour's *Elements of Embryology*.

partridge, yet its chances of survival in a wild state are decidedly less, for there are many handicaps in nursery days to set off against any superiority in strength of constitution. The chick has from the first only one parent to look after him, and even then the hen pheasant cannot compare with the partridge as sole guardian of a brood, for while the smaller bird will gather her charges together constantly and anxiously check and count lest one be missing, the larger hen has not the sense to notice that anything is wrong so long as she has a family at her feet, and will wander on contentedly with two or three chicks, quite oblivious of the facts that little quartus has just fallen into a ditch, quintus failed to get over the last fence, while sextus and septimus, lost in the long wet grass some hours ago, are even now taking their departure from an unkind world. Such tragedies in the domestic circle pass all unheeded by the fond but foolish mother to whom out of sight is indeed out of mind, the thriving happy

chick at her feet more than outweighing any faint misgivings as to many missing brothers and sisters.

So liable to lapses of memory indeed is this absent-minded creature, that if alarmed suddenly and flushed when with her young, she seems often to forget the family altogether, and omit the customary formality of coming back to see how they have fared when the danger is past.

In justice to the pheasant, however, it must be remembered that many generations of hand rearing cannot fail to have blunted the edge of maternal instinct, and there can be very few pheasants now of true wild descent; and further that the chick is a regular pickle to look after, singularly active, enterprising, inquisitive, and impatient of any restraint—a marked contrast to the sober, well-behaved little partridge.

At the same time it should not be forgotten that where the country suits them, the annual yield of wild pheasants over a period of years is always a

more assured quantity than is the case with partridges. In favourable seasons partridges certainly increase to numbers far beyond anything ever known among pheasants, but it is equally true that in bad seasons their numbers dwindle away to less than could be counted courting about the fields in spring, and reference to the pages of any country house game-book in a district where the conditions are equally favourable to both game-birds will generally show that while the total number of pheasants killed annually keep within a few hundreds of the average, the partridges will vary by thousands from year to year.

And the reason for this apparent anomaly is simple, for the nesting operations of the pheasants are spread over a longer period, and so the young birds are not subject in the same way to the wholesale catastrophe that so often sweeps away the rising generation of partridges in a few hours. Two such catastrophes, involving no more upheaval

of natural conditions than a few chill, wet days at the critical period of growth, and all chances of autumn sport on stubbles and turnips are at an end.

If the capricious clerk of our island weather allows us a warm fortnight either side of midsummer's day—the hazardous time in the life of the young partridge varies in different parts of the country—a good season is almost assured; if he grudge us this, as has been his common practice of late years, there may still be a moderate season if all goes well with the second broods, but a few evil days in late summer serve to bring their prospects to nought. So a summer of warmth and sun, with two unhappily timed breaks in the weather may easily result in no young partridges in autumn, though the pheasants would probably keep within measure of their average numbers in any but altogether exceptional years.

We need follow the young pheasant no further, since every reader of these pages must be familiar with his growth

and development, for a coop of pheasants is a common enough object in a country-side, and no written matter is worth anything beside the results of personal observation.

The average cock pheasant turns the scales between 3 and $3\frac{1}{2}$ pounds, the hen weighing nearly a pound less. It is an average often exceeded, especially among the offspring of a first-cross between birds of a different race, who are generally larger than either parent, although their offspring again show a tendency to revert to the normal. Cocks with one parent of pure Mongolian blood commonly weigh 5 pounds and more.

The expectation of life among pheasants can only be bad, and the age to which a pheasant can live if he escape the yearly hazards of the shooting season and the ordinary chances of existence, is an uncertain quantity; about fifteen years is the limit of aviary experience, while at Monteviot in Berwickshire a Bohemian cock has been known for thirteen years

in the same wood, and has so far never been over the guns. Probably most pheasants, if they met their end in no other way, would die of old age a year or so under twenty.

The food of the pheasant is varied in its nature, the staple diet at different seasons of the year being given in this brief summary :—

Insects and other small animals. Ants and their larvae; grasshoppers; many small beetles (including the destructive heather-beetle—*Lochmaea suturalis*); the larvae of many flies such as the well-known wire-worms and skip-jacks; caterpillars, snails and slugs.

It is worthy of note that all the thirty species of insects scheduled by the Board of Agriculture as specially noxious to farm and garden are freely eaten by the pheasant.

Green Herbs. The tender shoots of many grasses and sedges, cabbage, young clover, wild cress, pimpernel, young peas, besides couch grass and other noxious weeds. The flowers of tulips, crocuses, daffodils and buttercups.

Bulbous Roots. Pig-nuts, buttercup and lesser celandine tubers, common silverweed, wild arum, young potatoes, Jerusalem artichoke, roots of wood anemone; occasionally turnips.

Seeds. All grains; seeds of birch and alder; also of many grasses, sedges, polygonums, hemp-nettle, cornspurrey, cow-wheat, and other weeds; the keys of ash and sycamore; the spangles so common on under side of oak leaves in autumn, containing dormant eggs of a gadfly (*Neuroterus lenticularis*); new sprouting barley, and practically every (distinctively not comprehensively) seed that the farmer sows.

Berries and Fruits. Wild-strawberries, currants, raspberries, blackberries, elderberries, misletoe, hawthorn; the berries of holly, yew and of many shrubs in cultivation (see chapter on game-coverts); hips of the wild-rose, and in the garden, apples, pears, plums, cherries, and mulberries.

Nuts. Beech-mast, acorns of oak and ilex, hazel-nuts, sweet chestnuts.

It is curious to read in a traveller's notes of sixty years ago, that the staple food of a wild race of common pheasants at the mouth of the river Drin in Albania, consisted of maize, a diet more commonly associated by us with the rearing-field. While the above list includes most of what the pheasant lives on in general, he is on occasion capable of amazing gastronomic feats, and his capabilities

in this respect may be readily appreciated by the contents of a dozen crops, as recorded at different times in the columns of the *Field*, or by such approved authorities as Yarrell, Macgillivray, Thompson and Millais.

1. 8 young vipers.
2. A slow worm nine inches in length.
3. A short-tailed field-mouse (strangled its consumer).
4. Full of coloured snails from the bents (Island of Islay).
5. 1200 wire-worms.
6. 726 wire-worms, 1 acorn, 1 snail, 9 holly berries, 3 grains of wheat.
7. Full of grass.
8. Full of fronds of a fern (*Polypodium vulgare*).
9. Full of yellow flowers of buttercup.
10. 37 large acorns.
11. 24 full-sized hazel-nuts, and many large insect larvae.
12. 400 leather-jackets, or grubs of the Daddy-long-legs.

The presence of the dreaded heather-beetle lends an interest to the following recent analysis of a pheasant's meal :—

Contents of crop of young pheasant cock killed 800 feet above sea-level on moorland far from all

The Mongolian Pheasant

crops in Mid-Argyll, as recorded by Mr. H. L. Macdonald of Dunach.[1]

Analysis of Contents

Insects—Diptera :	*Bibio Lepidus*, LW.	2286 specimens
	Pollenia Rudis, Fab.	1 specimen
Coleoptera :	*Lochmaea suturalis*, Thoms. (Heather-beetle)	508 specimens
Hymenoptera :	*Myrmica rubra*, L. (Ant.)	2 ,,
Orthoptera :	*Stenobothrus* sp. (Grasshopper)	1 specimen
Mollusca—*Planorbis* sp.		2 specimens
	Total	2800 ,,

Vegetable Remains. Numerous tubers of Lesser Celandine (*Ranunculus ficaria*), one seed-capsule of Mouse-ear Chickweed (*Cerastium*), fragments of mosses and grasses, small stem with leaves of Heath Bed-straw (*Galium saxatile*), tiny shoot of heather (*Calluna vulgaris*), many fragments of leaves of the Bulbous Crowfoot (*Ranunculus bulbosus*), and a few leaflets of the Cuckoo-flower (*Cardamine pratensis*).

The careful teller of this Gargantuan repast of unconsidered trifles took no account of fragments, such as detached wings, legs, and heads, which would probably amount to an appreciable per-

[1] *Annals of Scottish Natural History*, November 1912.

centage of the whole. Pheasants will often kill numbers of frogs and voles, probably as much for the fun of it as with any idea of eating them.

One would naturally like to acquit the hero of this monograph of any disposition to injure the other interests of the country-side, but still it is to be feared that the old rhyme—

> Sow four grains in a row,
> One for the pigeon, one for the crow,
> One to rot and one to grow.

must have been written before pheasant-rearing on a large scale came into fashion. There is certainly a pretty notion that the pheasant amply compensates the farmer for any harm he may do the crops at certain seasons, by devouring a multitude of those insects and grubs most injurious to agriculture, and checking the spread of noxious weeds. Such a comfortable doctrine will naturally find ready acceptance among those interested in covert shooting, when they may read it endorsed at the hands of our standard

writers on sport and natural history;[1] to most farmers, however, the remedy seems worse than the disease; and they would rather put up with the uneaten wireworm and leather-jacket than have their crops lying close to coverts where pheasants are extensively reared.

On behalf of the pheasant it may truly be said that his case is not fairly presented; the good he does is underground, its effects indirect in their action and not likely to be appreciated by the farmer, while any mischief he may cause is only too evident to unfriendly eyes.

Nor would it be right to assume that pheasants always do material damage; on the contrary, in reasonable numbers they probably pay their footing on a farm with something to spare by services rendered as insecticides and weed-killers. But the demands of modern covert shooting are large, and often involve the presence of

[1] Cf. Mr. W. B. Tegetmeier, Mr. J. G. Millais, and Mr. W. Ogilvie Grant on the food of the pheasant and his services to agriculture.

pheasants on his ground in such numbers as the farmer can only reckon as quite unreasonable from his point of view. It is then that theories about nice balance of loss and gain can only be irritating to the sufferer in face of hard fact; for when pheasants gather in their hundreds to the one field where good things seem to them to be going to waste, there can only result to the farmer such direct loss to his pocket, as the indirect benefits of a whole hecatomb of slaughtered grubs would do little to cover.

Except perhaps in the case of winter wheat, which remains as a standing temptation, the bulk of the mischief is usually done in a short time. Fields of new-sown or new-sprouting wheat and barley, and grain between the ripening and the reaping, are only at the mercy of the wandering pheasant for at most a few weeks of the year. Besides these cereals, among which at these critical periods of their growth a horde of pheasants can play havoc in a few days, patches of potatoes,

standing crops of beans, and growing turnips are at times the subject of appreciable damage. This completes the tale of misdeeds which agriculture may impute to the pheasant, for few farmers could be hardhearted enough to grudge him place among the gleaners on the stubbles.

From taking note of what pheasants eat to a thought of their place on the farm was a somewhat natural digression; but the measures that the preserver of many pheasants may take to minimize the depredations of their charges and keep the farming interest at least neutral seem to come under rather a different heading, and are dealt with in another chapter; here let it suffice to state the fact that there is a distinct limit to the number of pheasants that a farm can support without undue tax being placed on its resources.

The interior economy of the pheasant is well adapted to deal with the miscellaneous objects with which it is at different times presented. The beak is a good all-

round serviceable weapon, and with the sharp edge of the upper mandible makes a tolerable pair of scissors, as those who take delight in their gardens may gather from the appearance of their crocuses and daffodils. The food is first stowed in the strong, capacious crop. Thence a short passage leads to the gizzard; this passage has an importance quite disproportionate to its length, for here the gastric fluid—essential to the process of digestion—is secreted. In the gizzard, which is lined with a dense, thick skin, the food is ground to a pulp, the action being much assisted by the grit — small stones and gravel—which the owner habitually swallows for the purpose. The pulp then passes through six feet of intestines, during which the nourishment for the support of the bird is extracted. The two cæca, or blind guts, are unusually large, and materially assist this latter process.[1]

The pheasant in a wild state is a singularly healthy bird, and the many

[1] Abbreviated from Tegetmeier on Pheasants.

diseases to which the race are subject in this country being largely due to departure from natural conditions in their state of life and surroundings, any mention of their cause and cure will find more suitable place among the notes on the rearing-field in a later chapter.

Varieties in plumage among pheasants are not uncommon; the stone-coloured edition of the normal cock, commonly known as the 'Bohemian' pheasant—and so persistent and true to type that earlier naturalists were more confident in considering him a normal race or species than the ring-necked bird—is well known to all, if not in the flesh then at least as an ornament in the hall or gun-room of any country house. Pied and white birds are a common by-product of the rearing-field, although almost unknown among birds unaffected by the influences of aviary or rearing-field. Natural mating of white with normal coloured birds results in offspring with little tendency to albinism, though probably by careful

selection the 'sport' might be in time made to some degree constant.

The bird that looks like neither cock nor hen, though resembling both, is a common object of interest at a covert shoot, and is usually — though quite wrongly—considered to be a very old hen. Age has nothing to do with the matter; the bird is only an example of the hard and fast rule, that whenever the ovary is damaged, by shot or otherwise, the hen pheasant, becoming infertile, must always begin to assume male plumage. The change is never complete; a scattering of hen feathers usually remain, especially on the green crown of the head and along the flanks, while the spurs of the male are invariably absent, or so rudimentary as scarcely to be noticed. Spurred females are, it is true, not altogether unknown; but they have normal plumage, and are fertile.

Besides interbreeding with almost any of the other pheasants, the ordinary pheasant will at times hybridize with

capercailzie, blackgame, guinea-fowl and common poultry. The hybrids between pheasant and domestic fowl are distinguishable from those between pheasant and blackgame by the tail, which in the former cross always has some feathers considerably elongated, while in the latter the middle feathers only are slightly longer than the rest, the whole tail being shorter and rounder. Some sixty instances are recorded of crosses between pheasants and blackgame;[1] while four hybrids between pheasant and capercailzie have been verified,[2] two, probably of the same brood, at Arden in Dumbartonshire during the winter of 1890, one from Sir Arthur Grant's estate of Monymusk in

[1] *Zoologist* for 1906, pp. 321-330: *British Birds*, Oct. 1912. Articles by Rev. F. C. R. Jourdain, M.A., who has established the following occurrences:—ENGLAND—Shropshire 10; Devon 7; Derbyshire 5; Notts 5; Cornwall 4; Northumberland 4; Hampshire 3; Yorkshire 2; Staffordshire, Surrey, Norfolk, Dorset, Warwick, Suffolk, one each: WALES—Brecon 3; Merioneth 1: SCOTLAND—Wigtownshire 3; Peebles, Lanark, Ayrshire, Mull, Kirkcudbright, one each; also one of unknown origin, making a total of sixty authenticated specimens.

[2] Paper by Mr. W. Eagle Clarke. *Annals of Scottish Natural History* 1898.

Mid-Aberdeenshire in 1895, and one in September (Query—was it shot out of season?—a nice point for a legal mind) 1897 at Stronchullin, Blairmore, S.E. Argyllshire. All four were cocks, two strongly resembling capercailzie with pheasant's feet and tails, the others being like huge and somewhat clumsy pheasants.

CHAPTER III

HISTORICAL NOTES

From Conquest to Commonwealth, from early feudal days until the long civil war called men to sterner fields of action, and the general use of gunpowder and the fowling-piece made any return to old ways impossible when the disturbances were over, falconry was the most popular of field sports in the land. Indeed, if we may trust the early and stringent regulations drawn up for the guidance of the sport, men of all ranks must have shared in its pleasures, since every class in the community is provided for in the list of hawks assigned to men according to their degree, from the falcon gentle and falcon of the rock for Prince and Duke, to the goshawk for a yeoman, the tiercel

for a poor man, and the kestrel for a knave.

It is true that in hawking days the pheasant can never have ranked very high as quarry for the nobler falcons, Peregrine or Iceland. These long-winged lords of the open country, and their smaller relative the merlin, could only find scope for their prowess among birds of freer flight — herons, kites, rooks, grouse, partridges, pigeon, and even dotterels and larks. Only on occasion can the chance have offered of flying a true falcon at some stray pheasant, surprised far enough away from his native wood to make an open flight possible.

In general a less noble bird was used to take the pheasant in woodland, the Goshawk, a large and strongly built bird with the typical short, round wings of the hawk, familiar as a native in this country till a century ago, but now no longer to be seen chasing the rooks—his favourite pastime—for he is extinct as a breeding

species, and is only known as a rare visitor.

While pheasants may not have been always so much thought of as birds of chase, they were at all times considered a great delicacy on the table, especially when killed by a hawk after a violent flight, which was supposed to make their flesh more 'short, tender, and disposed to corruption.'

The chronicler tells us that on the last night of his life, 29th Dec. 1170, the great prelate Thomas-à-Becket dined off a pheasant 'more heartily and cheerfully than usual'; the cook of King Richard II. certainly served his pheasants somewhat barbarously, boiling them with curlews for the royal table, but they were generally better treated in the kitchens of the great, and must have formed a pleasant contrast in the banqueting hall to the doubtful fare of swans and herons on which our ancestors used to regale themselves.

At a later date Suckling in his sonnets

of cavalier days praises the pheasant without stint :—

> 'Tis not the meat but 'tis the appetite
> Makes eating a delight,
> And if I like one dish
> More than another, that a pheasant is.

Thus the household account books of the middle ages are full of references to pheasants and the hawks used for their capture, of which the following may serve as examples :—

1490. Privy expenses of Princess Elizabeth of York. Under xiii daye of Novre.

Itm̃.—the same day to Richard Mylner of Byndfeld for bringing a present of fesauntes cokkes to the Queene at Westminster . . . . . vs.

1512. Household Book of 5th Earl of Northumberland.

Item.—Fessauntis for my Ld's owne Meas to be hadde at Principalle Festis and to be at xijd. a piece.

1536. Household Book. L'Estranges of Hunstanton.

Itm̃ gewen to Hunte, yeoman of the pultry, bringing two qwicke phesaunts to my lady's grace . . . . vijs. vjd.

1537. Royal Household.

Itm̃ the viij daye paied to maister Walshe for so moche money by him paied for goshawks, the which the king's grace bought upon the cage . . . . iij. Li.

Itm̃ the xvj daye to Hans the fawconer for hawk's mete; ev̄y hawke at one peny by the daye . . . xiijs. iijd.

Nor were legal enactments wanting to safeguard the pheasants. An act of Queen Elizabeth imposes a penalty of 20s. or a month for every pheasant taken by night, a statute of James I. fixing a close time between 1st July and last of August, every person hawking at or destroying a pheasant during these months being made liable to a fine of 40s. for every time so hawking, and 20s. for every pheasant so taken or destroyed, while an old Scots act of 1594 threatens with dire and divers penalties any enterprising individual pursuing pheasants 'either with gun, croce bow, hand bow, dogges halkes or girnes or be uther engine quhat-sum-ever in the king's haill wooddes, Forrestes and Parkes.'

To us, who only know the London of our own day, a vastly different capital city is suggested by a proclamation of Henry VIII., issued in 1536, to preserve the pheasants, herons and partridges from his palace at Westminster to St. Giles in the Fields, and from thence to Islington, Hampstead, Highgate and Hornsey Park.

The fowler of other days had need of all his craft when hawking the pheasant. He sought the woods with grey goshawk in hand, 'lusty and high and yet her stomach so sharp that she might fly eagerly,' and a couple or two of spaniels at his heels, and well trained and broken all his companions must have been to ensure any success in the sport. The methods of breaking hawk and spaniels to work together are well described by an early writer on the conduct of sport :—

Pheasant-hawking is a rural diversion managed with a gosshawk in coverts, of which none but those of a strong and able Body, with Spirit and Courage added thereto are fit; for this Flight is different from that in the Champaign Fields, where the Hawk and the Game are always in

THE CHINESE PHEASANT

sight, so that you are to *make* her to sort of Fowl that frequent obscure places, which hinders the Sight which should be your Guide in the Flight; you must then be very circumspect as to what Place you first enter in, to the End she may be well guarded and kept from taking any Dislike or Offence at the Dogs.

Having made Choice of the Place to fly your hawk in, be sure to command your Dogs behind you until you have found her, and if she has killed the game, it is sufficient; if not but you find her on the Ground out of an Eagerness of the Sport, as may well be at the first Entrance, if there be any Tree that she may well see from it, set her thereon, otherwise keep her on your fist, and beat for the pheasant again. Then if she flies and kills it, keep the dogs back until you have found her, and suffer her to plume and take her Pleasure for a Time. Then gently call on your Dogs and walk about her, encouraging her with your voice, and when you see it convenient, stoop to it upon your knees and, rending the Chaps, give her Blood in the Throat, which will please her much, and give her the Head in her Foot to eat, then, having your Dogs, which must be under great control, close by, throw the Pheasant among them that she may, together with some Words of Rebuke from you, make them give Way with Fear unto her. Let her eat it where the Quarry lay, then put on her Hood and reward her, by which Means you will much win her Love to you.

She will then soon become so bold and venturesome that the pheasant shall no sooner go to Pearch, but she have him by the Ears and pull him down. Thus with fair flying and two or three staunch spaniels the Faulconer shall come in a short Time to good Perfection in this sport.

While the goshawk lost his place in the world of sport with the coming of the gun, his partner in the gentle art of falconry —the spaniel, proved better adapted to changed conditions, and remained in favour for many years as the mainstay of every sportsman who would seek and shoot the pheasant. In earlier days, when faulty firearms made any accurate shooting difficult, and a bird on the wing a mark beyond the reach of most, the spaniel was relied on to range the wood and drive the pheasant to perch in a tree, whence the wielder of his cumbrous weapon might bring him down at his leisure.

When shooting flying became an accomplished art, the spaniel still held his place as invaluable to find and flush the game for the gun, as witness the follow-

ing verses, more noteworthy perhaps as giving a true picture of woodland sport in a bygone age than for any particular merit they may possess as poetry:

No pleasure or pastime that's under the sun,
Is equal to mine, with my dogs and my gun.

. . . . . .

My spaniels ne'er babble; they're under command,
Some range at a distance, and some hunt at hand;
When a woodcock they flush, or a pheasant they spring,
With heart cheering notes, how they make the woods ring.

. . . . . .

O'er the trees, yellow Autumn her mantle now flings,
And they eagerly enter the cover;
Up a cock pheasant springs, and th' echoing wood rings
With "dead! dead, my boys! Come in here, Rover."[1]

Well, those days are gone beyond recall, and yet the writer must confess that, after a fairly wide experience of every kind of covert shooting, good, bad and indifferent, days when the total ran into thousands, days when the first hundred was only reached after a struggle, places where the birds flew gloriously and gave to the

[1] *Songs of the Chace*, 1811.

marksman the supreme test of his skill, places where all that science and money can give had gone to make the shooting perfect of its kind, taking all in all, the days of less preparation and more endeavour—when a stretch of rough country, a brace of good working spaniels, a lad to carry the game, a score of wild and wary cock pheasants to pursue were all the material of sport—are perhaps as pleasant as any to remember.

Yet it would be absurd to disparage the more formal methods of modern covert shooting, just because one has a leaning to less orthodox ways and a liking for seeing dogs work. You must have youth and leisure on your side to conduct your own sport from start to finish; the trim hedgerows, carefully cultivated fields, and tidy woods of modern Britain leave little scope for the charms of wilder sport; nor indeed could those whose life is cast in towns for ten months of the year be reasonably expected to take to the country pursuits of a ruder age.

'Poaching' or 'mouching,' as the old fashion of shooting is now called for want of a better word, is at the best a selfish pursuit, wherein one friend is often one too many, while the covert shoot is a natural medium for social intercourse, a place of pleasant meetings, brightening the lives of one generation, and not uncommonly determining the future of the next, for one bow and arrow may often still be seen busy among the breech-loaders.

Giving, as it does, unequalled opportunities for making and meeting friends, for enjoying the good cheer and better company of our country homes, offering to the ambitious the field where reputations are made and lost—for the pheasant rise is the Bisley of the gun—and to the novice the best practice in acquiring the three essentials in good shooting, quickness, coolness, and accuracy, covert shooting may not rank very high among the true field sports when measured by the standard of hunter, naturalist, or lover of the wild

and its ways, but must be admitted by the most critical to be, if not sport, at least very good fun.

The least imaginative among us must sometimes indulge some slight wonder as to what the originals of those stolid family portraits that daily watch him at his dining-room table might think of his doings. We cannot often gratify our curiosity, but we may have their opinion of our covert shoots, for in the matter of shooting pheasants as in most other human affairs, it may truly be said that there is nothing new under the sun.

Announce in some smoking-room that considerably more than a century ago there were regular covert shoots, with hosts of beaters, bags running into four figures, ladies taking part in the shooting, and all the attendant paraphernalia of loaders, shooting-sticks, heavy hampers of game sent to market and the like, and you would almost certainly be contradicted, for all these things we consider a product of our own generation.

Yet you would be right; not in this country, it is true, for the battue, as its name implies, is of foreign extraction, and organized shoots were the general rule on the continent long before English squires and Scottish lairds took any thought of exploiting the undeveloped sporting resources of their manors and moors.

The second Earl of Malmesbury was sent, like many another young nobleman of the time, to finish his education by making the grand tour of Europe. In the course of his wanderings he spent a late autumn in Austria and Hungary, and the notes in his diary form such an interesting commentary on the modern 'battue,' as seen through the eyes of our great-grandfathers, that they seem well worth reproducing in full:[1]

17*th October* 1799. Left Vienna early in the morning for Hinkenbrünn, a small hunting seat of Prince Esterhazy's. Reached the ground nearly an hour before the Prince. Many servants were, however, arrived, and a large breakfast was laid

[1] Extracted from the shooting journals of the second Earl of Malmesbury as published in the *Country Life* Library.

out. About eleven the whole party was assembled, amounting to eighteen sportsmen, or rather shooters.

After taking coffee, we set out for the field of battle. The whole of a very extensive wood was surrounded by a net about four feet high, which was watched by women and children at every hundred yards. A vast number of gamekeepers and peasants had been employed all day and night in driving game within this net. Our scene of action was a piece of low, thick grassy cover about 900 yards long and 350 wide; this was surrounded on all sides by high copse wood.

The first measure adopted was to allot to every shooter his post. Eighteen stakes were numbered for that purpose, a ticket corresponding with that number having been previously given to us, and we had each of us the path pointed out that we were to pursue. Each man was at about 20 yards from his neighbour, and this intermediate space was filled up by peasants, so that the whole formed a complete and almost compact line, having its flanks on the high wood, and sweeping the *Remise* or low cover from side to side.

Each shooter had three people to attend him for the purpose of loading his guns, of which he had a relay of six, carried on a stand behind by a peasant. Some of us had for loaders grenadiers from the Prince's bodyguards, the finest men I ever saw.

We walked six times backwards and forwards

the length of this Remise. Whenever the line reached the extremities, it faced outwards from the centre, and filed off by wings into the corners, where it remained till the peasants had gone beyond the high wood, and driven the game back again into the low cover, so that but little could escape us. The whole lasted till past 3 P.M.

In advancing, no one was allowed to step out and pick up the slain, but this was done by the peasants as they stepped over them. The Remise had here and there higher clumps of brushwood interspersed with it, where I have seen the pheasants rise by *fifties* together. They have also rows of twisted stakes placed at intervals to prevent their running. In these spots I have fired my seven guns, one a double barrel, as fast as they could hand them to me. I killed *one hundred and nine* head myself, being well placed, 60 of which fell to my double-barrel'd Manton. I conjecture that I could not have fired less than 220 shots, and should certainly have been more successful had my borrowed guns been equally good. But the difference of their locks and make rendered it extraordinary that I killed anything with them—and, what is more so, that the '*Grand maître des chasses*,' or *Grand veneur* (who always presents an official report to the Prince after dinner), should have stated what my modesty ought to prevent my relating, that the 'Young Englishman shot the best.' As nearly as I could make out, I killed 25 hares, 2 woodcocks, 2

partridges and about 80 pheasants. I calculated that at least 3000 shots were fired by the whole party. *Nine hundred and thirty* peasants and keepers were employed in this *chasse*, allowed to be the finest thing of the sort given in Germany. The signals for beginning, for notifying the arrival of the Princess, and for dinner, were all made by a field piece brought for that purpose. Waggons were posted in our rear to carry off the game, which I understood was sold at market.

Upon the whole, it was for novelty and magnificence one of the finest sights that I ever beheld, tho' in point of *sport* it was little inferior to a butchery. The following is the Official Return given in of this day's *chasse*, and forwarded by the Prince to all who were present at it:—

17TH OCTOBER 1799

Killed on the spot—	
Hares	197
Pheasants	674
Partridges	4
Woodcocks	2
Total	877
Found after it was over—	
Hares	5
Pheasants	40
Partridges	2
Total	47

Found on the 18th crippled—

Hares	9
Pheasants	76
Woodcock	1
Total .	84

Total Hares . . .	211	Total 1008 head!
„ Pheasants . .	788	
„ Partridges . .	6	
„ Woodcocks . .	3	

A further entry in the same year may be quoted :—

Prince Schwartzenberg's, in Bohemia.

Nov. 24, 1799—Trauenberg.

The day appointed for the great pheasant *chasse*. It took place in a very large pheasantry situated about two miles from the castle. It is cut expressly in walks where you take your station, and the pheasants drive the birds over your heads. We were very few shooters, and the four ladies shot a little, killing about forty head amongst them. They had sets of light guns made on purpose for them, and portable chairs.

At the close of the day's sport there were laid out 540 pheasants, several of them white ones. Eighty-five fell to my share. We were but six or seven men shooters. The day was beautiful, and the quantity of birds far exceeded anything I had seen anywhere else. They literally rose at times

in clouds. *Nov. 25th.* We had another day's pheasant shooting in a *remise* where they had last year killed *in one day* 1200. Game so scarce here this year that we only bagged 385 pheasants. The *Remise* is an English mile long and about the half as wide, covered with high grass, clumped with copse wood, fern, and broom. The ladies did not shoot to-day as the cold was intense.

For nearly half a century after the date of these notes, Lord Malmesbury gave every day he could spare to his favourite pursuit; but, although he may be reckoned as one of the most ardent followers of the gun who ever lived, he never again sought to take part in another of the battues, which from the tone of his diary we may conclude he found little to his taste. After forty seasons of sport at his beautiful home, Heron Court, his game book gives a total of 6320 pheasants killed, an average of 157 a year, which would probably give not more than 5 or 6 to a day's shooting.

We must remember, however, that the day of the high pheasant had not come when the young Englishman found little

pleasure in these early covert shoots, and his average of 50 per cent, using borrowed guns of different lengths, points strongly to a long succession of low birds, for which all good lovers of shooting share a common distaste.

The heaviest shoot of these early times, of which the records have come down to us, took place in 1753, when the Emperor Francis I. went to stay with the Prince Colleredo on his Bohemian estates. The shooting lasted for 18 days; the number of guns is not mentioned, but 116,209 shots were fired, resulting in a total of 47,950 head, of which 9499 were pheasants, 19,545 partridges, 18,243 hares, and the balance 'inferior game.'[1]

Turning to our own country, the records of shooting in the eighteenth century are few and humble. We read that King George I. went out shooting in Windsor Park on an August day in 1724, and the tally of slain was but 5 pheasants and 3 partridges. It is noted

[1] *Itinérarie*, M. Dutens, p. 153, edition 1793.

that pheasants were rare at Belvoir it 1803. Twenty years later the first regular records of shooting begin to appear. In those times it was the fashion to credit each gun with his exact contribution to the total, a practice since universally discountenanced as liable to lead to jealousy among the guns, the most unpleasant feature — save only shooting actually dangerous to life and limb—that there can be in any shooting party.

"Better a pheasant missed than a pheasant shared," says the adage in the gunroom at Sandringham. Thus, still at Belvoir, we have the modest totals of early shoots recorded in this wise.

31st December 1825, Barcheston Wood

H.R.H. The Duke of York	10 pheasants 1 woodcock	22 pheasants, 2 woodcocks.
The Duke of Rutland .	4 pheasants	
Mr. Norman . . .	2 pheasants	
Lord C. Manners . .	4 pheasants	
Lord R. Manners . .	2 pheasants	
Mr. D'Ewes Coke . .	1 woodcock	

Ten years later again we find the totals increasing, and in the same wood on

January 5, 1835, 86 pheasants and over 100 head of game were killed in an afternoon by seven guns, the Dukes of Rutland and Wellington, Lords Denbigh, Forester, and Burghersh, General Upton, and Mr. Croker.

Probably one of the earliest records of covert shooting—on what must have seemed a large scale in those days—comes from Writham in Norfolk, where the Duke of Bedford with six other guns killed 80 cock pheasants and 40 hares one day in 1796. Certainly from Norfolk came the whole system of modern pheasant shooting, for while others were still content to walk their woods in line, Lord Leicester had already appreciated the latent possibilities of the pheasant as a bird of sport, and early in the nineteenth century the famous coverts in the park at Holkham were shot on the regular plan which has ever since been followed there, and on which every good rise of pheasants in the country is, directly or indirectly, modelled.

The most cursory survey of pheasant shooting in the past would be incomplete without a passing reference to the famous Colonel Peter Hawker. We must all admire—if we do not all wish to emulate—the sportsman who cheerfully enters in his private diary—"breakfasted by candle-light, walked hard all day in a deluge of rain, bagged three cock pheasants; gloriously out-manœvured all the other shooters, came home very satisfied and dined off one of the birds."

No day was too wet, no way too long for the gallant colonel, if there was but a chance of sport with the gun. His military career cut short by a wound which lamed him for life, Colonel Hawker gave much of his time to shooting, and his modest diaries are filled with such entries as the following, with a feeling throughout of the real thing—the true spirit of sport.

Oct. 12, 1826—(on the road for Scotland to shoot his first grouse).—On passing the Duke of Newcastle's, on the right going down, the

"Other Days, Other Ways"

enormous quantity of pheasants which were within 20 yards of the road is scarcely to be credited; there were nearly 100 of them close together like a flock of pigeons. Unluckily for me, but luckily for His Grace, it poured so hard that I never could have unpacked my gun, otherwise the guard and coachman would readily have brought to for action.

Oct. 1*st*, 1847.—Only two pheasants on all my estate—both cocks, and both came home to the larder, after as hard and grand a chase with a village rabble as ever old Smith had with his crack foxhounds. We had five hours of it, before the two birds came to hand.

Oct. 2nd, 1848.—Usual early start to scour our woods and every place in bounds. After some hard fagging for hours, with markers well planted, there at last sprung up an old cock pheasant. The old cock then made for our wood, which obliged us to beat it all over a second time, though to no purpose, till I luckily twigged the old rascal at perch, and of course blew him down, thus bringing to the larder one pheasant.

Came home to lunch, meaning to turn out again and beat the rest of the day for a hen bird that had been seen yesterday, but there set in such a determined wet afternoon that I dismissed my followers. About five the rain abated, and I went off in hopes of catching the hen at feed, but without success. At one time dreaded a blank, but got all right by bagging three rabbits.

Oct. 31, 1848.—A report of a pheasant. Mustered all hands, and beat everywhere all day, but never found him.

Oct. 1*st*, 1849.—Kept up annual custom of a grand sally forth: had the great good luck to bring home the only three pheasants I saw. A very satisfactory day.

1850, *Oct.* 9*th*.—Summoned all my myrmidons to the chase of an old cock pheasant seen flying across the meadow for our wood. In spite of cavalry and infantry the old devil escaped, though we never failed to head him in advance and surround him in every way. We found him first about a quarter-past eleven and saw him last about a quarter before six, and he outwitted me and my unrivalled army from morning till nightfall.

15*th*.—A fine day, so went off early to search for the artful old cock pheasant again: and in the very last field, as we were coming home at night, up he flew eight gunshots off, and mounted over our wood, but though we beat till dark, I never found him.

Until the passing of that much-abused measure, the Ground Game Act, in 1880, the coverts were generally shot as much for hares and rabbits as with any thought of pheasants, and so walking the woods in line was the common practice in most

An Open Flight

parts of the country. Once the ground game was gone, the pheasant alone remained to be considered, and despite much adverse criticism—mostly nonsense—in its earlier days, the 'battue,' as it was then known, sprang into popular favour. The business of rearing pheasants went forward merrily year by year, with a steady tendency to increase, until now the number of birds annually brought up by hand could only be reckoned in millions.

Perhaps the best commentary on changed conditions may be given by a quotation from an article on the covert shooting at Castle Ashby :[1]—"So far bags have been modest, an average of a little over 800 a day being the most achieved." What would our grandfathers have said of the word 'modest' being used in this context ?

Unlike the records of partridges and grouse, which have a certain value, the actual number of pheasants killed in a

[1] From 'English Homes of Sport' in the *Badminton Magazine*.

day can have no legitimate interest for anyone, for once we have departed so far from natural conditions, we may have practically as many pheasants in our coverts as we are prepared to pay for. Besides in pheasant shooting, quality is everything, quantity in comparison counting for little, so that figures may with every reason be left alone.

CHAPTER IV

THE EVERLASTING QUESTION

"Of all the field pleasures wherewith old time and men's invention hath blest the houres of our recreation there is none to excelle the delight of hunting."

The quotation is from one of Gervase Markham's books, a heavy tome some three hundred years old, and for every Court gallant and country squire who took his pleasure in horse and hound when the Stewarts were newly come to rule in England, there must now be close on a hundred men and women who think that there is nothing in the whole world *quite* like hunting.

Horse and fox—too often in the shooting world the words are but another rendering of pride and prejudice—have

still as firm a hold as ever on popular affection, as large a share in our national life, and men live for hunting as they live for little else.

In this twentieth century more than four hundred packs of hounds take the field with each opening season in the British Islands: of these about half either chase the red-deer—in a few instances nobly wild, but for the most part ignominiously carted—or pursue the hare with harrier, beagle, or bassett; they have happily little concern with the pheasant rearer, but there remain the two hundred packs of fox-hounds, representing a most potent influence in the realm of sport—whose interests cannot—and should not—be lightly set aside by anyone whose lot is cast in a hunting country.

Now it would be idle to pretend a happier state of affairs than exists; the interests of hunting and shooting have little in common; the conduct of one sport is largely at variance with the successful pursuit of the other, and the *modus*

vivendi by which both may be maintained on the same ground can only be a plant of delicate growth, dependent for its existence on a mutual readiness to make allowances for the mistakes and misunderstandings which no amount of good intentions can wholly serve to avert.

In handling such a thorny problem as the continual and more or less inevitable strife between fox-hunter and pheasant-preserver, it seems certainly easier—should the word be not altogether out of place in this context—to hold the balance fairly if personal experience of blank days and closed coverts on the one hand, or ravaged nests, slaughtered poults, and unpremeditated bouquets of pheasants on a grand scale on the other, have not come to warp the judgment of an otherwise open mind. For without wishing to betray the generous hospitality for which our English country homes are so deservedly famous, it would seem matter for fair comment to note the general impression which the ordinary stranger

can scarcely fail to carry away with him, after a sojourn in the land where fox and pheasant strive for the mastery. After he has listened to much talk in stable or kennel, by covert side or with his knees under the mahogany of his host's dining-room table, and 'heard great argument about it and about,' he will surely—if he believe but one half of what he has been told—be forced to the conclusion that the members of either the hunting or shooting community of Midlandshire (whichever his lot has not been cast among), although in all the ordinary walks of life they may be known as men of at least average intelligence and ability, yet on this one particular point are quite devoid of understanding, proud, prejudiced, and generally unreasonable.

There are of course exceptions—favoured districts where hunting and shooting neighbours dwell together in perfect amity; but these are passing rare, and in truth there is such a good case to be made out for either side, that

constant friction seems almost inevitable, which may be magnified into a serious quarrel or reduced to a comparative trifle, according to the amount of tact with which those in authority are blest.

It is no easy matter to voice the opinions of others, yet something of what the fox-hunter thinks must find place in these pages, if any appearance of impartiality is to be preserved. To an outside observer the creed of the hunting community would seem to run thus :—

Fox-hunting has the right to be supreme among the field sports in this country, a proposition which no one with any sense of the fitness of things could honestly deny. Hallowed by every tradition that sportsmen hold dear, intimately bound up for generations with the best traits of our national character, exercising as marked an influence for good on our race of men as on our breed of horses, an integral part of our country life, the finest training for our soldiers as the finest sport for its own sake in the

whole world, fox-hunting may well claim the allegiance of every good Englishman. Hunting is a catholic sport; all sorts and conditions of men who could never have any part in the pleasures of covert shooting, may sometimes beg or borrow—when they cannot buy—a horse and have a ride to hounds; while anyone — no matter what his condition—who is blest with a sound pair of legs, may in some degree share in the ardours of the chase.

The present is a critical time in the history of our national sport, when conditions unknown in the past seem almost to endanger its continued existence. Masters of hounds have to reckon not only with the manifold difficulties of barbed wire—now so generally used, but also with overcrowded fields of inconsiderate strangers, caring little and knowing less of the land they ride over, their presence only tending to foster a feeling among the farmers, lukewarm, if not actively hostile, to the interests of the hunt.

At such a time the indifference of the landed class would be fatal; whether a gentleman personally cares for hunting or not is quite beside the question; if he has a place in a hunting country, he must—unless he be lost to all sense of decency—have some regard for the customs of the district in which he lives. So far as hunting is concerned, these customs from old-established practice constitute unwritten laws, to which long consent gives moral authority, dependent only on the continued support of public opinion.

Even setting aside the relative importance of the interests concerned, and looking at the whole matter from a purely sporting point of view, it would seem almost ludicrous to institute any serious comparison between the virile, healthy, sport of hunting, giving pleasure to hundreds at a time, calling into play every quality of manly pluck and endurance, attended by just that spice of danger that marks every true sport, and such a degenerate, selfish pastime as covert shooting, with its easy

ways and easy hours, presenting neither difficulty nor danger to its followers, tolerable perhaps as an out-of-door amusement for the old, but not worthy of the prime of manhood.

This is much what fox-hunters believe, even though they are sometimes too polite to express what they feel quite so bluntly, and the follower of the gun might thus make answer: — "I am all for fair play all round, but don't quite see where I come in at all in your scheme of things as they should be. I am a decent member of society, possibly deserving quite as well of my country as you, and entitled to equal consideration. I happen to prefer shooting to hunting, and one way and another I pay heavy enough already for my sport, without the extra tax levied by your foxes. The labouring class benefit far more by my presence than they do by yours, and further, your very sport is almost entirely dependent on me, for without the game and rabbits that I preserve, your foxes — now more numerous than ever

before—could never be tolerated in any agricultural community. If I preserve your foxes religiously, it can only be at the hazard of my own interests, and devilish little thanks I seem to get for it: if I raise a hand to protect my own, I am at once written down as a hardened offender, a selfish brute, and an outrage on civilization."

Such, in brief, are the points really bearing on the issue which are advanced on behalf of the rival sports. Other points are often brought forward, but they do not seem to carry much weight, for after all it does not really make any difference whether a man pay more for his hunter than his cartridges, or whether a thousand dead pheasants have a greater commercial value than a brace of dead foxes.

If it be true that the looker-on sees most of the game, then the writer may —without seeming unduly impertinent— be allowed to offer a few words of that cheap commodity — friendly advice. To the hunt authorities he would suggest in

the first place that a frank recognition of the damage done by foxes to game is by far the best policy. To set the fox on a pedestal and say that anyone ought to be proud to entertain him at the expense of their pheasants cannot possibly be expected to appeal to those whose tastes lie in a different direction, but even that were far better than the over-common habit of seeking to minimize the amount of damage done.

Nothing is better calculated to irritate and estrange master and keeper alike, who may be conscientiously doing their best for the hunting interest, than to have it more than hinted that much of the damage they seem to think they have sustained either exists only in their own imagination, or else is rightly attributable to other agency than 'the dog with a bad name.'

The misdeeds of the fox are often glaring; and that the hunt authorities are overfond of glossing them over is a constant subject for complaint among shooting men. One instance — easily

verified—may serve to show that such complaints are not always unreasonable. If you turn the pages of the *Encyclopedia of Sport*, you will find an article on the fox by the famous Mr. T. Firr. And this is all he has to say on the question of food-supply:—

> A Rover by night, the fox turns out soon after the setting of the sun, and embarks upon his usual rounds in search of food, rabbits, rats, mice, beetles, etc.; of rats and mice he is particularly fond, whilst the number of beetles he gets is astonishing.

And that is all; not a single word of pheasants, partridges, leverets, grouse, and lambs unless they be included after beetles in a singularly comprehensive 'etc.'

Such suppression of matters of common knowledge—probably deemed a judicious expedient, is really a most short-sighted policy, and the keeper who had just lost a score of nests would feel anything but charitably disposed towards the hunting friend who talked to him about 'the astonishing number of beetles that foxes eat.'

Nor should the hunt claim to come among the pheasants as a blessing in disguise. It is quite a common belief in hunting circles that drawing pheasant coverts before they have been shot does little harm and teaches the bird how to fly to the improvement of sport later on. But the evils of disturbance among birds so naturally disposed to wander as pheasants are very real, and do not only exist in the keeper's imagination; all the world is the same to the pheasant that has strayed a few hundred yards from home; good living and shelter are all he seeks, and his movements are quite uninfluenced by any sentimental regard for home.

The injustice that owners of coverts who preserve their foxes religiously feel most keenly is that they are often tacitly expected to support not only enough foxes to show sport on their own ground, but a liberal margin to stock all the surrounding country, where foxes do not perhaps lead such an easy life. To have

THE PRINCE OF WALES' PHEASANT

your coverts treated like the sanctuary on a deer forest is not a fair tax on your good-will, and masters of hounds should never ask or expect more foxes to be preserved than they are prepared to make use of on the ground where they live.

Keepers, either with or without the authority of their employers, will often take to killing their foxes because the hounds never come or never kill when they do; and such measures of self-defence seem natural enough, for the foxes while doing real harm to their game, seem to be doing little or no good to anyone else.

On one estate of no great size in a hunting country, the writer is well aware —although the owner is not—that the keeper kills from thirty to fifty foxes every year, and yet the hounds have rarely had a blank day in these coverts. Without some such measures, this keeper would find it difficult to keep his pheasants or indeed his situation, for some sport he must show for the gun, or else be written

down a failure. "If I don't 'unt them, they'd 'unt me," was his own terse comment on the situation, and there is little doubt that justifiable vulpecide is less rare and more reasonable than hunt authorities—to whom indeed it may only seem a contradiction in terms—are willing to admit.

Since the above lines were written there has been a discussion in the pages of a magazine, largely devoted to the hunting interest, as to the desirable number of foxes to maintain. Many expressed their views, but few seemed to have any thought of making any allowance for shooting neighbours, the general trend of opinion being sufficiently expressed by a single quotation from the many letters published :—

> I do not believe that there are (or can be) too many foxes in any hunting country. Personally I have been an M.F.H. for 53 years, and have never once found foxes too numerous.

There is one other point, in approaching which one must tread delicately ; it is

surely of rare occurrence, yet there have been undoubted instances of the hunt authorities trying to get the better of the gamekeeper by questionable means, removing a superfluous litter by request in the day, and replacing it in the same woods under cover of night. It is scarcely necessary to point out that such methods could only serve to defeat their own ends, for the average gamekeeper would soon come to know that he had been 'had,' and could easily 'get back his own' without any fear of detection.

The right spirit in which hunt authorities should deal with the game-preservers within their sphere of influence, might thus be expressed—as seen by a would-be dispassionate critic.

We do not seek to deny that our sport is largely dependent on your good will; we frankly admit that our foxes don't make things any easier for you, and may at times be a serious evil. We cannot deny that the law allows you to refuse us your coverts, nor could we be surprised—were

legal rights and your own interests the sole considerations to be taken into account—if harbourage and access were denied to the fox and his hunters. Whether this would be worth your while in other ways we will not pause to consider; we would rather appeal directly to your generosity as brethren of the great fellowship of sport, who should surely all unite in furthering the interests of sport generally, even though it may involve some personal inconvenience. Do this for us, and you will not find us ungrateful or oblivious of your sacrifices, which we will endeavour to repay by every consideration of your game and your ground.

For the rest, the writer would recommend all game-preservers in hunting countries to read the thirteen verses of the thirteenth chapter of the first epistle to the Corinthians, especially those about the charity that suffereth long and endureth all things. After all it is only a negligible minority of game-preservers who can find it consistent with their

notion of 'playing the game' to banish the fox and close their coverts to the hunt. Most will be influenced by their desire to do the right thing by everybody, some perhaps only by the fear of public opinion, but the foxes will be safe enough, so long as owners of coverts are taken the right way.

It is agreed then to set down the fox as a necessity, of which, if shooting men cannot make a virtue, yet much can be done to mitigate the vice. Briefly we may now consider the fox as a permanent fixture on a pheasant shoot, his deeds and misdeeds, and how the latter may be reduced to their irreducible minimum.

The benefits conferred by a fox on a shooting will not take very long to enumerate, yet they are not altogether negligible. The fox destroys rats, stoats, and weasels, and removes all sickly game which might otherwise induce an outbreak of disease among the healthy; he also stimulates activity among keepers and watchers, while sometimes he saves them

both time and trouble, by relieving them of their duties in picking up after a shoot.

His misdeeds need no enumeration; every gamekeeper in a hunting country knows well enough what he is capable of. Fortunately we have here only to deal with pheasants; among partridges the fox may prove an evil with which the most resourceful keeper may find himself unable to cope, but on the rearing-field and in the covert good management will generally enable the keeper to hold his own, if only he be blest with enough mother-wit to pit against the rare cunning of his adversary.

For the cunning of the fox is a far more tangible quality than most proverbial attributes. To take but one instance; a fox has been seen, when a hen pheasant fluttered away in front of him after the time-honoured and somewhat pathetic manner of so many bird mothers, to give up the fruitless chase after a few yards, return to the exact spot where he first put her up, nose round until he had

found and eaten the last chick, and then lie up in ambush to wait the return of the anxious mother. To compete against an antagonist of such calibre, year in and year out, with any measure of success demands ready resource and fertile invention.

The staple food of the fox is the rabbit; rabbits must then abound where foxes have to be entertained, to the sad detriment of park, woodland and garden, but yet essential for the safety of henroost and game preserve. Not every fox by any means hunts regularly for game, but —like other lapses from virtue—the habit, once acquired soon becomes the ruling passion of the individual,

The worst enemies to game are the mangy-fox, whose loathsome disease denies him rest and drives him to hunt by day as well as night, the half-tame, hand-reared cub, which hunt authorities are only too fond of turning down, who has lost half his natural fear of man and his devices, and the vixen with a litter of

cubs to support. The presence of the first should be at once reported to the Secretary of the hunt, and measures arranged for his destruction, for all parties are equally interested in removing him at once. The hand-reared cub is also a matter for the Secretary of the hunt, who should never inflict such an evil on any loyal supporter of hunting.

The vixen and cubs is the normal problem, and many are the ways by which clever keepers minimize the mischief that would soon become a very serious evil if allowed to pass unchecked. The one good point about a vixen feeding cubs, as compared with other foxes, is that she only hunts with a strict eye to business and seldom indulges in that wanton slaughter, which game-preservers find the most maddening trait in other foxes.

On estates of any size where pheasants are reared, it would certainly repay the cost to have gorse coverts specially laid out for the benefit of the foxes; dense, several acres in extent, and as far from the main

game-coverts as is consistent with the feelings of neighbouring rearers of pheasants. A sufficiency of rabbits in these coverts will keep the cubs occupied when they come to hunt for themselves, and may save the rearing-field from their unwelcome attentions.

With regard to influencing the family arrangements of the litter, artificial earths are not as a rule necessary, except only on a clay soil, where foxes have perforce to live above ground under natural conditions and game suffers accordingly.

With the arrival of the nesting season, the presence of the fox begins to make itself most sensibly felt, and many and diverse are the devices and stratagems employed by keepers to save their charges from destruction. Some wire in the vixen and her litter from the end of March to the close of June, feeding by hand all the time. One keeper at least has improved on this idea by having in addition one big wired-in enclosure in the centre of his main covert, banked up on the outside, so

that any dog or odd foxes may jump in to join the single fox already confined within.

Many keepers manage to induce the vixen to remove her litter to a site more desirable from their point of view, by making an attractive new earth and calling her attention to it by judicious feeding. It has been found possible to get the litter moved as much as a mile away by good management.

The vixen's normal round is a wide one, for she leaves in peace any rabbits or game which live in the immediate vicinity of the earth, possibly—as some think—to keep a reputation for good behaviour with her neighbours, but more probably to ensure a ready supply of food for her cubs against the day when they take to finding themselves.

Taking advantage of this natural desire to wander far afield on her nightly marauds, the clever keeper can keep her time fully occupied in carrying food to her cubs, which food is placed warm at

the furthest limit of the vixen's round. For this purpose live or fresh-killed rabbits, snared or trapped, young rooks, rats, stoats, weasels, waterhens or pigeons can be used. They should be handled as little as possible, and the considerable labour involved in thus catering for the family will be well repaid, if all the time the vixen would otherwise have spent in hunting be given up to collecting such inconsidered trifles, easily obtainable on most estates. This system, however, though admirable on paper, has in practice been found unworkable by several good keepers, the vixen failing to play her assigned part.

To kill the vixen and rear the cubs by hand is a common practice among keepers, who find in it a simple solution of their difficulties. But it is not a policy that can be commended from any point of view. The cubs are undeniably bad for the huntsman, familiarity has given them an undesirable contempt for man and his ways, while they always show marked

tendency to keep close to home when they do begin to hunt for themselves.

The devices for the protection of nests and sitting birds beyond the confines of the rearing-field are many and various; most have but a short-lived efficacy. The nests may be completely wired in with netting, or a strand of the thin wire known as 'bouquet' wire stretched across each side of the nest to trip and scare the marauder. Among simple devices the luminous disk is probably the most effective: set up about the level of a fox's nose, two to a nest in a fence, three round a nest in the open, these disks have been found to answer their purpose well by many who have given them an extended trial.

The site of a nest makes all the difference to its probable security, and it is well to remember that artificially made nests placed in suitable spots, with the added inducement of a few dummy eggs, will always attract pheasant hens, however carefully they may be concealed, and that

by their use the keeper can have his sitting birds more or less where he would like them to be. The hen sitting close on her nest certainly has little scent to betray her whereabouts, yet she is by no means immune, for the fox often manages to find her somehow, whether from the hen omitting the precaution of flying on and off the nest, or simply from sheer perseverance in hunting the hedgerow.

But all these questions, and matters such as the protection of sitting birds during the last days of incubation, when they are so readily winded, the dangers of dead chicks in the nest and so forth, come more properly within the sphere of partridges and their preservation than in the scope of these pages.

For unless the Euston system be adopted (into the details of which it is not proposed to enter here,[1] since with pheasants the results are scarcely worth the labour involved) the wild pheasant can

[1] For a full account of the Euston system see *Partridges and Partridge Manors*, p. 108 *et sequitur*.

—for the most part—only be a negligible quantity where foxes are rigidly and regularly preserved, and so the problems of the nesting time are for our purposes more or less identical with those of the rearing-field. This should always be surrounded by a wire fence at least 8 feet in height, the netting kept taut, and the top quarter bent outwards at a sharp angle. With every precaution, the fox will still occasionally effect an entrance, as on a Sussex estate in 1904, when a vixen succeeded in surmounting a wire enclosure 9 feet high, destroying 51 nearly full-grown pheasants in the night.[1] As a further-safeguard, the wire should be turned in about a foot underground, which may easily be done by ploughing a single furrow along the line of fence, and treading the sod turned up back over the netting.

When for any reason the erection of netting is not feasible, alarm guns con-

[1] *The Natural History of British Game Birds*, J. G. Millais.

nected by wires so as to form a continuous ring round the field, dogs fastened by a short chain to a long wire, luminous disks, lanterns on revolving bottle-jacks, and other similar devices are fairly reliable means of protection, though the much advertised tainting fluids cannot be relied on with the implicit confidence their manufacturers seek to impress upon clients.

In any case, no such means of protection will enable the services of the night watcher to be dispensed with, for his presence is the best security of all. If a blind man can be secured, he generally makes the best watcher; for his sense of hearing is abnormally acute, while an acetylene motor lamp is a valuable assistance to the watcher who has to rely as much on his eyes as on his ears, enabling him readily to investigate the cause of any movement which arouses his suspicions.

The troubles of the rearing-field safely over, there is still a time of considerable

danger when young birds are first turned into covert, before they have learnt to roost out of harm's way. A wise precaution in this regard is to buy only those eggs that come from another hunting country, where presumably the birds have a hereditary tendency to roost in the trees, ground roosting strains having long since been eliminated. Tall bushes put up in the rearing-field during the last few weeks of the young bird's sojourn there will also certainly help to teach the birds to take to the trees at night when they find themselves in the woods.

At this period of their existence it might be well to sprinkle the young birds with some tainting fluid before turning them down in covert, as this should help to save them from their enemies until they have learnt to fend for themselves. For the same reason hens in coops about the coverts are useful auxiliaries, giving the alarm in time of danger. At the same time maize should be reduced as a diet for the young birds, for in large

"There's Many a Slip"

quantities it has a decided tendency to make birds heavy, lazy and inclined to roost on the ground.

Once the bulk of the birds have safely reached the stage of roosting in the trees, there is little chance of their suffering any serious hurt from foxes, so long as they keep strong and healthy.

In the shooting season the fox has still to be reckoned with as a possible marplot; many a good rise of pheasants has been spoilt by his untimely appearance, while hunt and hounds in the coverts do little to encourage the pheasants to stay at home. The disturbance probably counts for little when the hunt only passes through the woods in the course of a run, but becomes rather a serious matter when hounds are drawing a covert—so serious indeed that many game-preservers have insisted on closing their coverts to the hunt until the pheasants have been shot. Quite frankly it seems impossible to say whether they are morally justified in doing this, but in any case it seems

rather a hazardous expedient, for hunted foxes in search of rest would surely discover such a land of quiet, and make these closed coverts into a place of sanctuary.

Enough has been said, it is hoped, to show that with a right understanding between hunt authorities and pheasant-rearers, good covert shooting is by no means incompatible with plenty of foxes for the purposes of hunting. He would be a bold man who would dare to say as much of partridges or grouse, but with hand-reared pheasants, the exercise of continued vigilance, care and tact can achieve surprising results in face of difficulties, which the absence of these qualities in the management can easily cause to appear insuperable.

For those who would seek more detailed information on this vexed question than the scope of this volume can afford to admit, we would cordially recommend the modest volume on the subject written by the Secretary of the Gamekeepers'

Association.[1] It is a well-reasoned, clear, and concise exposition of a difficult problem, and contains much advice of a practical nature in a readable form.

On one point only would we join issue with the writer of this volume. He recommends that on shooting days, all earths should be stopped with a faggot as soon as the foxes are inside, which they will be whenever the beaters start tapping. This precaution will prevent any fox making mischief during the proceedings, and admit of a 'pick-up' the next day, which is otherwise a work of supererogation.

A nice theory, but so entirely dependent on the fox playing his part and going to ground when required, that in practice it would almost always prove useless, since experience shows that many, many foxes have no inclination to go to ground at any time during a covert shoot.

[1] *Game and Foxes*, by Mr. F. W. Millard. The *Field* Office, 1906.

CHAPTER V

WOODLAND AND COVERT

Give me a glade
With tangled bracken for a carpet laid,
And lawns between
Where the blue hyacinth is dimly seen,
Trees here and there
Lest on mine ease the sun too hotly stare.

THUS the poet of nature, and the pheasant, albeit less concerned with picturesque aspect than the practical demands of existence, would yet find matter for approval in these lines, as largely reflecting his own private opinion of a wood in desirable condition. Not so alas! the forester, whose economic mind would probably find little to admire in this sylvan glade, his professional eye only seeing in its wild beauty a poor and dirty crop. With business mind

largely engrossed by considerations of possible yield of timber, he is perhaps at times not able to see the wood quite clearly for the trees, and were we to seek a heading for a chapter on woodlands more likely to take *his* fancy, we would have to start in other vein with something like—

> Statelier than temples upbuilded with hands
> Tall column by column the sanctuary stands
> Of the pine forest's infinite aisles.

This might set him in better humour, stimulating intricate mental calculations about so many cubic feet of good red deal per acre.

Thus at the very outset we are faced by this difficult problem, how at once to meet the demands of forestry and game in the management of our woodlands. There used to be a third consideration to be satisfied, the preservation of the natural beauties of coverts devoted to game. But this was in the days when the rabbit flourished and multiplied exceedingly in our parks and policies, to

the sad detriment of tree, shrub, and wild flower alike. The coverts were then walked in line, pheasants were, for the most part, few and far between, and rabbits and hares furnished the staple of the shooting.

Save only in hunting countries, where the fox must still have his natural food lest worse befall, changing fashions have ousted the rabbit from his place of pride, and there is no call for his appearance at a modern rise of pheasants. The shooting of ground game at any covert shoot worthy of the name is now only appreciated by the beaters, among whom there will always be more joy over an occasional rabbit dodging down the line than in the flushing of many pheasants, any enjoyment the guns might find in the sport being spoilt by the unpleasant and often inevitable risk of shooting some unseen stop or keeper.

These changes in the ways of sport, together with the effect of the Ground Game Acts — that much condemned

measure, to which, however, such stability as our Game Laws now possess is largely due — and a truer appreciation of the mischief the rabbit is capable of, have resulted in his being generally banned from the grounds of our country homes, and relegated to the comparative seclusion of the warren or the waste. Since his happy departure from the demesne—the few that survive scarcely count when compared with the hungry hordes of other days — there remains no reason why pheasant coverts should not be made as picturesque as though they had been planned and planted by a landscape gardener. Indeed many of the conditions which the ideal game-covert must fulfil might easily be mistaken for an artist's canons of beauty.

But to make our coverts conform to the standards of scientific forestry is another matter altogether, and since the broad backs—and *very* broad backs they must be in this twentieth century—of our landowners and country gentlemen

have had to bear no slight burden of abuse at the hands of the exponents of the new system of forestry—new at least in this country, though practised for many generations on the continent—for alleged neglect of the timber-producing capacities of their woodlands, it were no bad thing to avoid any shelving or glossing over of a difficult question, but rather to go bald-headed—to use an expressive Americanism—for it at once.

A brief summary of what forester and gamekeeper would consider the right ordering of woods on an estate, as relating to their several callings, may serve to show us how far asunder their ideals lie, when untrammelled by any thought of compromise.

The commercial side must assuredly come first, in these days when the rank of a sport is often determined quite seriously by the number of men it employs. The forester, then, would have his trees concentrated in extensive blocks. Timber-forming qualities would determine

the aspect, often northerly and away from the sun, especially where conifers are concerned. He would have a mixed crop of the timber trees best suited to the district, arranged on an 80 or 100 years rotation, so that each year should furnish its quota of matured timber for the woodman's axe and the saw-mill, the annual fall being made good by corresponding area of new planting, so that—once the system is in working order—the cycle of one century shall follow another in unbroken succession. Time counts for little in the forester's plans, two generations of short-lived humans shall have reached their allotted span ere his work shall see fruition; he labours for generations yet unborn. His system once established, little more than one sixth of his woods—the young plantations of the last fifteen years—would be of any value to the game-preserver.

Over all the main portion of the planted area the trees—thickly planted and sparingly thinned, forced to thrust

upwards in search of light and air—would present an endless vista of long clean stems rising from the bare ground; no stray side branches, for timber trees must be hemmed in to prevent any "furnishing," which leads to infinite deterioration in the quality of the wood; no undergrowth, for the sun cannot penetrate the dense overhead canopy.

A solid block of perchance 500 acres, whereof 50 would offer some covert for game, a bare 20 give birds a few trees to roost in, and the whole of the remaining 430 acres afford to the wandering pheasant —who finds no special merit in good growing timber—nought but a bare and uninviting world, wherein he must fare sans shelter, sans sun, sans food, sans roost, sans everything in short that makes life to him worth living.

Thus far the forester, and it must be borne in mind that, owing to the peculiar circumstances with which he has had to deal in this country, the effects of his "working system" do not immediately

become apparent. From a false notion of the space a tree required for health, the last generation nearly killed their woods by excessive kindness. These over-thinned woods are practically worthless to the forester, and so the first outcome of his scheme consists in extensive felling and replanting of all the older planted area. Thus under the first years of his régime, the interests of game are well provided for by the abundance of young wood, but this advantage is naturally only transitory, as the normal annual planting — one eightieth at most of the whole — soon comes into operation.

Let us now turn to the gamekeeper's view of the matter. His coverts should all lie well to the sun, and instead of concentration he would have dispersion. His woodland area divided into many coverts of manageable size; more numerous about the policies, chief stronghold of his pheasants, but with outlying clumps, strips and belts all over the estate to shelter his fields and offer safe

sanctuary to straying game and wild-bred pheasants.

Sunny and well watered by spring or running stream, each covert would be planned to enhance the advantages of the natural rise and fall of the ground. Leading upwards from the main covert below, a strip should follow the curve of that rising knoll, through which the birds may be easily guided into the thick-set clump that shall mark its summit, whence they shall presently turn homewards in twos and threes, soaring high over the line of guns below.

So much for his disposition of the woods, and now for their interior economy. Time cannot fail to enter largely into his calculations; he cannot afford to wait the leisure of slow growing forest trees; if he plant covert for his game, it must needs serve his purpose in the near future, so his thoughts naturally turn to trees of rapid growth—not always the best producers of timber. Seeking protection from cold, wet, and wind, his coverts shall

have wide margins of willows, shrubs, and low growing trees. Within, more than half the growing crop shall have been thinned before it reaches maturity, the forest trees finally standing 30-40 feet apart, spreading limbs of spruce and silver fir, supplying roost and shelter, while oak and beech provide a scattered woodland harvest.

The sun filters through the wide-spread branches, encouraging a tangled undergrowth of bramble, briar, and bracken throughout the whole wood, where indeed it has not been supplemented and supplanted by dense patches of low-growing plants less natural to the soil, but even more congenial to game by reason of the food and cover they afford.

Wide rides, admitting health-giving air and light, intersect the larger woods, dividing them into regular sections, bordered on either side by a wealth of berry and fruit-bearing shrubs.

These outline sketches should serve to show how widely different an appearance

the same estate might present, were either game or timber the sole consideration allowed to make its influence felt. Small wonder that constant friction is bound to arise between the rival departments of forester and gamekeeper, where no working system of compromise between their conflicting interests has been arrived at.

Such a compromise is by no means unattainable, and the question seems one of sufficient weight to warrant our briefly considering the relative importance of the rival claims on our attention, before trying to indicate the general lines on which a settlement may be effected, by which—although both parties may have to be content to sacrifice something—yet the interests of neither shall be unduly compromised.

The chief points of the forester's case may thus be summed up. The low estate of our woods and forests is a matter of vital interest to the nation. Every year nearly 10,000,000 tons of such timber as our climate and soil would grow, are im-

ported from foreign countries. The value of this timber considerably exceeds twenty millions sterling, and even then we must add to it another seven or eight millions expended on the by-products of forestry, such as wood-pulp, brooms, brushes, baskets and the like. The afforestation of 6,000,000 acres would meet this demand, insure against a not improbable shortage of future supplies from abroad, and further provide the raw material for new branches of industry, which shall contribute directly to the material welfare of the community. Bearing these facts in mind, it seems wrong that the undeveloped resources of our woods—almost entirely in the hands of private owners—should be consistently neglected for the interests of such comparatively trivial considerations as sport and scenery—the more so since capital invested in woods shows ample security with fair expectation of profitable return thereon.

The game-preserver would answer thus:—These facts are doubtless true, but are a subject for action on the part

of the government, and are quite beyond the province of the ordinary individual landowner. These millions of acres—heath waste and unproductive sheepland—lie ready to the nation's hand to be planted by the nation for the nation's good. It would be quite beyond the means of the average landowner—in these times when imperial taxation and local burdens steadily increase at a rate perversely proportionate to the decline of agricultural rents—to contemplate with any equanimity the heavy capital expenditure required to plant on a remunerative scale, wherefrom only his descendant in the second or third generation could derive any benefit.

Moreover a simple calculation sufficiently proves that the planting of any land, whereof the agricultural rental exceeds half-a-crown an acre, is economically unsound from a commercial point of view, the eventual expectation from the timber crop being swallowed up in compound interest on initial expenditure and lost

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rental during the long period of unremunerative years before the trees reach their growth.

The coverts which surround our country homes are usually on good park soil, and cannot well be treated in the light of a business proposition. They contribute immeasurably to the beauty and interest of the place, they give invaluable shelter to park and pastures. Good supplies of wood for firing and estate purposes they may be relied on to produce; if judiciously kept they may add very considerably to the sporting value of the estate; they may even eventually make some tangible return when felled, but they cannot be counted among the things that pay a dividend—the standard of worth by which this material generation is too fond of measuring everything.

So there is much to be said on both sides, and the one fact which seems to stand out clear is that the proprietor must never forget that in ordering the management of his woods, he is dealing

with directly conflicting interests, and must consequently make up his mind to some definite line of policy, and stick to it.

If he be of the "whole hogger" type he may either devote his coverts entirely to game and let all considerations of timber go by the board, or else he may sacrifice the shooting to the exclusive cultivation of high forest—well and good; if he be of more open mind he may devote certain portions of his woods to the production of timber, and others to the maintenance of his pheasants—equally well and good. But if, without definite end in view, he chop and change between one course and the other, swayed by the varying expert advice of forester and gamekeeper, and seeking by small concessions to conciliate each in turn, he may rest assured that his woods will eventually serve no useful purpose whatsoever.

No precise rules may be laid down as to the wisest course to adopt, only careful consideration of the varying local conditions can determine the working

system in each particular case — for pheasant-coverts need working on a system every whit as much as any other form of woodland; thus on a cold clay soil or in a district where foxes are rife it may be wise to give over the woods entirely to forestry, relegating the pheasants to a negligible quantity in the economy of the estate; whereas on the light sandy soil — so congenial to game, but often lacking in timber-forming qualities—the position may with equal justice be reversed.

Such extreme cases are however the exception, and on the normal estate the problem is more complex, game and timber being required to thrive together. Where the total area to be dealt with is sufficiently extensive, it would seem best frankly to assign certain woods to the forester and others to the gamekeeper. But here again we have supposed a happier state of things than usually exists, for only on large estates can such woodland areas be available for distribution.

On the average estate, then, the forester and gamekeeper must share possession of the woods, and it only remains to determine how they can be made to serve the interests of both at once. Now it is obvious, on the one hand, that if game is to flourish, the forester must sacrifice his dense block of close-grown trees, beneath which all is dark, sunless and bare; while on the other, if any timber worthy of the name is to be produced, the gamekeeper must equally resign all ideas of tangled brakes with scattered trees enough for shade and shelter and no more.

There then seem to be two practicable methods—not usually indeed alternative, for one or the other will be found better suited to each particular case—which shall make the same woods serve two masters, in as little unhappy a compromise as is possible where directly conflicting interests have to be considered. Applicable either to the treatment of existing woods or to the planning and planting of new coverts, the employment of one or other

should at least enable forester and gamekeeper to share the woods in comparative amity, each finding fair field therein for the pursuit of his objects.

The first system is technically known in sylviculture as "stored coppice." For a more detailed exposition of its practice than the scope of this volume would allow us to give here, any in search of further information may with advantage refer to Professor Schlich's admirable treatise on Forestry,[1] where they will find a clear and exhaustive explanation of the practical application of its principles. Here it must suffice us to outline very briefly the main features of the system.

Of all woodland crops, coppice is perhaps the most favourable for the maintenance of a large and healthy stock of pheasants, the lack of roosting-trees being its sole disadvantage. Formerly the production of tanning-bark made oak-coppice a profitable crop on sunny southern slopes

[1] *Manual of Forestry*, by Professor W. Schlich, vol. i. "Forest Policy in the British Empire," pp. 215-244, London, 1906.

throughout the country, while coppice of ash, alder, hazel, birch, and sweet chestnut was extensively cultivated in the central and southern counties of England to meet a steady demand for hop poles, charcoal for the making of gunpowder, and firewood. But times have changed; the tanners will no longer pay for oak bark what it costs to collect; hops are grown on post-and-wires; and pure coppice woods now show no margin of profit, and cannot hold any place in rural economy.

Chestnut coppice is perhaps the one exception to this general rule, its rapid growth — under favourable conditions cultivation on the short rotation of eight years having been found practicable— coupled with a steady and sufficient demand for the young wood in the manufacture of the light fencing known as chestnut paling, having made this a valuable crop of late years.

This branch of forest industry is however necessarily dependent on soil and situation, and for the most part it is only

by yielding a regular supply of forest timber in addition to the underwood that coppice can now be expected to pay its way, and at the same time preserve those features which make it so attractive to game.

Stored coppice consists of a full and dense underwood covering all the planted area, surmounted by an overwood of standard trees. The underwood must be of a nature to bear a moderate amount of shade without loss of vigour, while the overwood should consist for the most part of thin-crowned trees such as ash, oak, and larch which admit enough light to let the underwood thrive beneath, with sparing admixture of spruce and silver to provide night lodging for the pheasants.

Both shall alike be worked on a regular rotation, the exact period varying according to local conditions, which determine the nature of the crop, and the local market, which settles the age to which the underwood may be allowed to attain. The underwood commonly consists of oak,

ash, or hazel, with alder in wet places and chestnut on sandy soil. To ensure a regular rotation of woodland crop, the woods should be divided into equal cutting areas, the number of which is determined by the age to which the underwood can be profitably allowed to attain, usually about twenty years, which period serves to keep the standard trees clear of side branches to a height of about thirty feet.

One cutting area is dealt with every year, the mature timber trees felled, about five tellers, or new standard trees, being selected from each acre of underwood, and the rest of the underwood cut. This area should be shot over before the end of November, giving three clear months for the forester's work. Thus by the close of March all disturbance should be at an end, and the wood left quiet on the approach of the nesting season. The woods would thus be almost entirely covered with dense stool-grown underwood of varying age, interspersed by groups of standard timber

trees from 20 to 80 years old, at which latter age all the hardwoods—except perhaps the oak, which may require the full century to mature—have reached their growth, and are ripe for the woodman's axe.

It will easily be realized that this system ensures a regular—if limited—supply of good quality timber and at the same time the maintenance of practically the full stock of pheasants that the woods are capable of supporting under any conditions.

Where the adoption of any such system is impracticable, the only alternative would seem to be a division of each wood of any size—and to grow timber of any value a block of some extent must always be necessary—into two distinct portions: the central block to be a solid mass of timber trees grown under forest conditions, while a wide margin is wholly given over to the interests of game, and planted with mixed trees of rapid but restricted growth, shrubs and fruiting plants. In this case the

forester's yield is reduced by about one-third through loss of area, but the eventual crop should be all clean, sound, close-grown timber. On the other hand, the margin, besides offering the pheasant a natural home, serves to shelter the whole wood from wind, wet and cold, to the benefit alike of game and forest trees.

In conclusion, one would like to suggest that on many estates of no great acreage, the head-keeper might well be given the charge of the woods in addition to the duties of his own office. Such an arrangement commonly obtains on the Continent, and—so far as one can judge—with good results, but it seems rarely, if ever, to have been given a trial in this country. There may be good reasons against such a course, but they are not very evident, and since keeper and forester have both to be daily about the woods in the ordinary walks of their business, it would appear quite natural to place the two branches of estate work under one head.

The keeper might have to trust rather

more to his men to carry out the details of his own work than before, but could still exercise a thorough supervision over their doings. It would probably be advisable to increase the pay of his office to ensure getting a man equal to the dual responsibility; the interests of the game would be advanced, nor would any extra burden be imposed on the finances of the estate.

Nor does it seem unreasonable to suppose that a man of average intelligence —and your modern keeper is certainly no fool — familiar with the ways of nature and accustomed to using his eyes, could master the elementary principles and simple operations of good forestry in a few months' schooling.

Such a proposition is hardly likely to find any favour with those whose chief business or pleasure lies in the practice of forestry. They will doubtless hold that sylviculture is as much a profession by itself as the making of boots, and one demanding as assiduous an apprenticeship

to attain any proficiency in its conduct. Certainly where forest areas of great extent have to be dealt with, and felling and replanting events of annual occurrence, there is much to be said for their contention; our intelligent amateur might well lack the technical knowledge necessary for efficient supervision.

But these are quite exceptional cases, and we are largely concerned with estates where simple care is all that is requisite to maintain the normal standard of well-being in the woods, sometimes for half a life-time at a stretch, and during these long periods of slow growth it is difficult to understand how the average wood of this country could suffer any appreciable deterioration under the rule of the modern keeper.

In outlining the general policy to be pursued, in making a working plan of the woods, in determining the most profitable crop to plant, in measuring growing timber or in dealing with some problem requiring scientific knowledge to unravel, expert

advice on woodland management would probably be necessary. There would then be no difficulty in arranging for a visit by a professional expert on forestry, nor would his moderate fee count for much in the undoubted saving in money, time and unnecessary friction, which this change would effect.

Still many will think the suggestion unreasonable, and the gamekeeper quite unfit to manage anything but his own affairs; seeing that, even if he had the necessary training and experience, he would still neglect the interests of forestry in favour of his pheasants. This may well have been true of the old race of keepers, but I doubt if it be applicable to the new school of singularly intelligent men who have arisen in their stead.

Speaking from a tolerably wide experience of keepers and their ways, and yet under correction, as no expert in matters pertaining to forestry, I offer the suggestion—which has yet to be disproved—that any one of the better class of head-

keepers who has made a success of his own job, and has not passed the adaptable age, will be found quite capable—with a sound working plan drawn up for his guidance, a little practical experience under an efficient teacher, and a sufficient staff of men—of managing the woods on the average estate in Britain efficiently and economically, and will probably take as much pride in the nurture of his trees as he already does in the rearing of his pheasants.

CHAPTER VI

GAME-COVERTS

In the last chapter the difficulties of making our woods good game-coverts without entirely sacrificing all prospect of eventual yield of timber were discussed at some length. This is but one aspect of woodland management—an aspect, indeed, which many writers on shooting are apt to pass over in silence as one beyond the province of sport altogether; yet the interests of forestry—an important consideration in the economy of every estate where business methods prevail—must always be so intimately connected with the requirements of covert-shooting, that they may fairly claim full consideration at our hands.

Such consideration we trust that they

have now received, and pass on to matters more directly connected with shooting. Woods—in their restricted sense of game-coverts—have still a dual function to fulfil, the maintenance and production of the pheasant. By maintenance we would imply all that goes to keep that arrant tramp—the pheasant—contentedly living at home in the numbers ordained by the powers that be; by production, such arrangement and distribution of coverts as shall admit of the maximum number of birds being collected and put over the guns at the height that the perfection of modern firearms has made essential to any pleasure in the sport, with the minimum trouble, expense and chance of failure.

The pheasant must naturally have the first say in the matter, since all else can only depend on his being found at home when wanted to join in the sport; and should his lodging not be to his liking, he is quite willing, when rough weather comes, to take the road in search of

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pastures new, without another thought of home.

His desires, then, run to a warm and sheltered wood where the sun shines; a wood of some size, watered by stream or pond, with open spaces to let in light and air, thick undercover, abundance of natural food both animal and vegetable, and good branches—that is, easy of access and set at a convenient angle to the tree—to roost in.

While he vastly prefers a warm, dry soil to heavy wet clay land, at the same time he will thrive in alder-grown swamps and osier beds, for both of which, as indeed for all overgrown wet places, he often shows a marked partiality, even with apparently more favourable woods near by—a partiality not easy to understand, unless we credit the race with old-standing memories of the tamarisk swamps and reed-grown flats of their ancestral rivers. At all times he dislikes woods that are bare, cold, draughty, or gloomy, and trees or shrubs that give a heavy drip in wet weather.

To make a good shoot, on the other hand, we must have small, thick clumps or belts; small, so that the bulk of the pheasants may be collected and cornered at the flushing spot with reasonable economy of beaters and birds; thick, to hold the birds and admit of their being flushed by twos and threes.

This holding cover can often only be provided by laurels or rhododendrons, and there seems to be a widespread notion that pheasants are particularly fond of these evergreens, due probably to the common sight of a mass of birds rising from their midst on shooting days. In point of fact, the pheasant as a rule rather dislikes these wet and dripping bushes in winter, only taking to them in times of alarm or as a refuge from snow.

The coverts from which the birds are to be shot must—if the quality of the shooting be any consideration—be planted with the sole object of making a good rise; they will thus commonly be placed on the higher ground, where neither aspect

nor exposure makes them attractive for pheasants to live in. There are of course occasional districts where the natural features of the ground make high birds inevitable, and any special provision for their production unnecessary: of such are the west country coombes, the steep hillsides of Wales, the glens of Scotland, and the Yorkshire dales. In such favoured countries we may shoot the pheasants in the woods they live in without any fear of unduly low birds: but they are the exception, and as a general rule the scene of the covert-shoot is laid among the gently undulating surroundings of the typical English park or Scots policies.

We have, therefore, two definite and distinct kinds of covert necessary under ordinary conditions to the successful conduct of a pheasant-shoot. First of the game-coverts proper, as opposed to coverts for shooting facilities only, of which more anon. In position these should be sheltered and central, the stronghold of the pheasants. They

should lie well to the sun with something of south or west in their aspect; with dense marginal growth to break the searching winds of winter, wide rides and not too close a canopy, and sufficient width of wood to give shelter and sanctuary. In determining the aspect of a wood, it is well to remember that a few degrees in the angle of the sun make all the difference in warmth.

The provision of water in dry soils is essential to the welfare of the birds, whether from natural sources or by the use of drinking-fountains. In which context it may not be without interest to note that probably the most successful pheasant rearer of his day once told the writer that he considered the fact of his woods being absolutely waterless as a point in his favour; for since his birds were entirely dependent on his drinking-pans to quench their thirst, he was thus able to retain the post of physician to his charges, after they had passed out of his immediate care on the rearing-field, any

drug, herb, or simple mixed with their water being certain to reach every bird in the covert. To this fact he attributed a total immunity from the complaint of gapes—often so fruitful a source of trouble among young birds after they have been turned down in the coverts. Apart from medical prescriptions for specific diseases, his young pheasants in covert enjoyed rude health on a constant supply of weak nettle tea.

To take up the tale of what good game-coverts should conform to, it is of some importance to avoid having open drains that are cut narrow and deep; they should rather be made with sloping sides up which young birds may scramble to safety after the tumble to the bottom, which curiosity or carelessness makes almost inevitable among all young things. The rides should be cut straight, dividing the wood into regular sections; they should always stop short of the marginal wind-break, and while those running east and west may well be cut as wide as fears

of letting in the wind and so wrecking the wood may with safety allow; rides with a northerly and southerly direction are better kept as little more than foot-paths.

Among forest trees, ash, sycamore, ilex, beech, and oak yield a plentiful harvest of seeds and fruit, while the slow-decaying leaves of the two latter encourage abundance of insect life. Where these hardwood trees have not reached maturity, the same end may be attained by planting the many fruit and berry-bearing shrubs of which the pheasant is so fond, and encouraging a plentiful growth of willow to harbour insects.

In years of plentiful woodland crops, when pheasants are feeding largely on acorns—of which they are inordinately fond—they require more grit and water to keep them in health than at any other time, the one to ease the process of digestion, the other to counteract the effects of an unusually dry and heating food.

With some approach to these conditions in his surroundings and food

plentiful and regular in its appearance, the pheasant cares little how big the woods may be in which he is housed, the desirable outline of the larger coverts being rather determined by convenience for shooting.

Belts or strips of trees dividing the fields are useful additions to a shooting, especially on outside beats where they often collect a goodly number of waifs and strays which would otherwise have never come to the gun. They should be at least forty yards in width if they are to serve any useful purpose, and some thought should be taken, when planning them out, as to the provision of flushing spots, for shooting the average belt in regular sections—a common practice—is not conducive to good birds.

Woods of great area are at all times unhandy to manage, and must be heavily stocked to repay the labour and cost of beating, and to provide for the inevitable wastage of birds. This disadvantage becomes more marked if their general

outline approaches the square in shape, and it may then take a whole army of beaters and stops to command the movements of the birds; but if their width be not more than half their length, half as many men may serve to beat the same area. In general, one large covert of manageable shape and size surrounded by smaller clumps within easy distance is the best distribution of woods for shooting purposes.

Wherever any other method can be devised, pheasants should never be shot in the central wood where they live, unless the fall of the ground admits of some corner being regularly laid off as a flushing spot. However well the rides may be cut back, the shooting is almost inevitably a disappointing performance, when birds are simply driven from one section of the wood into another. This leads us to the second class of game-covert, into which the larger covert should be driven blank, and the birds shot on their homeward flight.

Flushing-coverts need not be self-contained, but may be the corner of another wood; they are, however, best suited to their purpose as isolated clumps, or connected with the main wood by a belt. Apart from considerations of site, influenced solely by the ease with which birds may be driven into them, and made to fly high when they turn home again, their sole need is thick under-cover. To show that there is an exception to every rule, it may be mentioned that in one of the best rises in the kingdom the flushing spot consists of naked rock, as bare of under-cover as may well be conceived. The success of this rise is, of course, due to peculiar conditions, the birds being pushed out of the woods in which they live straight up the side of a mountain. Running on in front of the beaters until they reach the bare rocks, some squat, others turn back at once, a few scramble up to the summit; but all, having nowhere else to go, must eventually come soaring homewards over the guns.

In most places, however, the pheasants will find many other ways to go, if the flushing spot be not thick enough to give the false impression to the hunted bird of being safe sanctuary till the danger be past. Dense under-cover is essential too for keeping the birds from all rising together in a cloud when the first one takes wing, instead of squatting close and being flushed one by one.

Artificial thickening of flushing spots has been dealt with in another chapter; we have here only to deal with the alternative method—far more satisfactory in every way—of providing natural under-cover, which, although differing somewhat in its nature, is equally essential to the well-being of both woods that pheasants are to live in, and coverts from which they are to be shot.

It is naturally only a rare instance in which ground can be regularly laid out for covert-shooting, and each wood planned and planted in relation to the rest; the usual problem is rather how to adapt and

make the best of existing woods without incurring heavy expenditure in fencing and forestry. In almost every case where game will thrive, and yet where bad birds for shooting have been the rule for years, the rises can be improved out of all recognition by simple means. A little thought as to what is wanted, a few days of experiment, and then the planting of some clump or perhaps only a little clearing here and the thickening of an end there will generally be found to make all the difference. When birds of the 'highest killable quality' are desired, the problem becomes another matter altogether, but to make every rise a respectable one is within the reach of all who have any scope of ground to work with and sense enough to appreciate such possibilities as it may possess.

It is somewhat surprising to find—considering how highly good covert-shooting is valued—how little attention is usually given to the care of game-coverts, more particularly with regard to what they may

become in the future, most people being satisfied if they serve their immediate purpose. So much can be done at such trifling expense to keep woods in good condition for the purposes of shooting, if only the matter be taken in hand before they have gone too long untended to make an easy or quick recovery possible. In no case is the proverb of 'a stitch in time' more true, for once woods have been allowed to become really hollow, bare and draughty, the problem of what to do with them becomes serious, and only a free hand with the three things most people can least afford—time, labour, and money, will then make good the years of neglect. Good under-cover is the one essential, and nothing is more difficult to provide where it does not naturally flourish or has never been carefully cultivated.

There seems to be only one book in existence on the subject of planting coverts for game; it shall remain nameless here, for the writer must honestly confess

that the chief effect of carefully reading through its pages was to embolden him —although no expert in botany— to try his prentice hand at a short summary of the matter. In the list of suitable trees and plants which closes the chapter, there will be found no mention of Lombardy poplars as wind-breaks, hemlock spruces for margins, or deodars as roosting trees, all of which were warmly recommended for these purposes in the work alluded to above.

Their omission is not accidental, for it seems impossible to subscribe to their inclusion in any practical list of useful trees.

Outside the wood the enclosing hedges deserve more attention than they are commonly allowed, for if they have room to thrive and make growth, they will in time become valuable wind-breaks. Inside the wood the growth of the trees is a simple matter, compared to the difficulty of finding something to grow under or among them.

Good under-cover must first suit the soil and situation or it will never repay the trouble of planting; it must be of quick growth and rapidly spreading habit; to some extent it must be tolerant of shade and drip, and when once established should be able to hold its own with the rabbit. It must give dry shelter to game in late winter, for which reason such plants as the common bracken, which looks splendid cover in autumn, but is laid flat later by rain and wind, must be ruled out of count as unworthy of extensive cultivation, although in small patches it is undoubtedly attractive to game. Lastly comes the question of cost, and no plant that cannot be bought or reared in the estate nurseries at less than 50s. a thousand, can be considered of any practical value.

In a recent article which found place in the columns of a leading newspaper, the writer dwelt on the common neglect of the beautiful in planting cover for game, and urged that a double purpose might be

served by making use of many beautiful flowering shrubs, instancing in particular, the *Andromeda floribunda* as worthy of consideration in this respect. A beautiful plant beyond doubt, but so long as each Andromeda costs 3s. 6d., it is hardly possible to treat such a proposition seriously.

It should hardly be necessary to point out that a plant which makes admirable under-cover in one district, may fail to do the same under different conditions, yet many neglect this obvious fact; what is wanted is not the many plants that will survive, but the one or two that will grow lustily and spread apace, and only a careful study of soil and climate will disclose their names. For instance in our mild climate of Galloway, three plants in particular, to wit *Spiræa Douglasii*, *Xantrisa apifolia* and *Rosa serotina* seem to have all the attributes of the best under-cover, yet I would be slow to recommend them as certain to do as well elsewhere.

Copsewood or natural growth of heather, bramble and whin — natural, please, for if these common natives do not appear on their own account, there is sure to be good reason for their absence, and little profit in trying to introduce them—make as good under-cover as can be desired, and, generally speaking, where they will not do the best substitutes will be found among the various free-seeding grasses, privets, snow-berries, or some of the varieties of roses, spiræas, and other shrubs given in the list at the end of the chapter.

Many plants are called shade-bearers, but the term is rather a misnomer, for there is practically nothing that will take hold, flourish, and spread without light under the drip of the trees ; the rhododendrons perhaps come first in this respect, wherein lies their chief claim to merit, but even they will only maintain their hold if planted before the shade becomes dense, and have little chance of succeeding when first planted under shade and drip.

The fruits and berries of the under-cover are an important consideration and materially add to the attractions of a wood for pheasants, especially those that are persistent through late winter. No plant can produce a good crop without light and air. Writing of the snow-berry —one of the most valuable forms of under-cover in this respect—an experienced gardener[1] says that it generally occurs in neglected shrubberies as an unpleasing, half-starved weed, the right treatment being to collect the suckers and plant them in a solid mass on open ground with nothing above them: then in spring when the sap is rising and the first signs of foliage peeping out, they should be cut down level with soil so that nothing is visible. The result is a compact growth some three feet high in the same year, hardly recognizable as the same plant, covered in summer with delicate pink flowers, and in autumn set all over with the white fruit balls.

[1] Mrs. Earle in *Pot Pourri from a Surrey Garden.*

As to the all-devouring rabbit, nothing is safe from his attentions until it is firmly established, for curiosity leads him to attack anything and everything newly planted. This annoying trait seems common to all rabbits, but, at other times different breeds of rabbits seem to have widely varying tastes in vegetation, sparing a plant in one district, and utterly destroying it in another. Thus you may chance on occasion to see rabbits among a splendid undergrowth of holly, but it is useless arguing from this that young hollies and rabbits do well together, for in some other part of the country one unsuspected family of rabbits may well suffice to destroy every holly you plant. Those plants then that are given the credit of being in any degree rabbit-proof can only be safely considered as enjoying a large immunity from their destructive attentions once they are firmly established. In any event a multitude of rabbits in a wood is never conducive to the welfare

of under-cover, either natural or induced, nor in any way helpful to the pheasant.

In all planting and improving of woods, time is a serious consideration, for even grasses and shrubs take years to establish themselves firmly and make their presence felt; it is advisable therefore to ascertain the probable pace of growth before selecting plants from nurserymen's lists.

LIST OF TREES, SHRUBS AND PLANTS SUITABLE FOR GAME-COVERTS

Roosting Trees

Silver Fir (*Abies pectinata*), Central and Southern Europe about 1620.	Slow growth at first, more rapid after ten years planted; will not bear exposure, prefers an open soil, moist without being wet; bears shade when young; usually said not to be liked by rabbits, but all the *Abies* family are often greedily devoured when first planted.
Norway Spruce Fir (*Picea excelsa*), Mountains of Europe, 1548.	Of rapid growth; will stand exposure better than last; does best in cold, moist soil; shade-bearer when young; similar to the silver fir in its relations to rabbits.

Scots Pine (*Pinus sylvestris*), indigenous.	For dryer or sandy soils; of somewhat slow growth in later years, but more rapid than spruce or silver in its earlier stages.

These may be considered standard trees for pheasants to roost in: but almost any of the conifers whose growth is not too dense, and whose branches approach the horizontal, are well adapted for the purpose; among such we may mention the Sitka (or Menzies)—whose prickly habit when young gives it a better chance than most against rabbits—hemlock and black spruces; of the firs, *Abies grandis*, *Abies nobilis*, *Abies Nordmanniana*, etc.; many of the true pines, especially the fast-growing Corsican pine (*P. Laricio*), which is perhaps less subject to damage from rabbits than the rest, and for this reason should always be preferred to the Austrian pine (*P. austriaca*) which it somewhat closely resembles, but which —although useful as a wind-break in exposed situations—is of little value for roosting and is freely attacked by rabbits; the Douglas fir (*Pseudotsuga Douglasii*)

is a valuable tree in this respect, of very rapid growth, whose only fault is an over-dense habit; the Colorado variety is now preferred by foresters to the Vancouver. Pheasants are also very fond of roosting in larches, but this is not a habit that should be encouraged, for besides coming off rather badly in rough weather they then fall the easiest victims to the night poacher: at the same time young larch plantations make excellent coverts for game, besides being the most profitable crop known to forestry. The Japanese larch is of much more rapid growth than the European, especially during the first ten years.

Forest Trees.—The oak, beech, ilex, ash and sycamore are the best timber trees for pheasant-coverts by reason of the natural food they afford. Of these the oak is by far the most valuable, and in some favoured districts the pheasants will thrive on acorns and little else throughout the winter. The beech is, unfortunately, intolerant of any under-

growth, while all four have the common disadvantage of slow growth.

MARGINAL TREES

Hawthorn (*Cratægus Oxyacantha*), indigenous.	The Anglo-Saxon hæg-thorn or hedge-thorn clearly indicates its customary use. Will attain a height of 40 feet under natural growth. The familiar crimson berries stay long on the naked branches and are a fair food for game; not proof against rabbits.
Willow, Huntingdon (*Salix alba*), indigenous.	Of rapid growth; makes good shelter in poor, wet soils and marshy places.

The golden, purple and scarlet willows are varieties of the above, and—if regularly cut over—the young growth makes a pretty bit of colour in winter. The late John Simpson produced a natural seedling variety called the Game-Covert willow, which he claimed would flourish in the driest and poorest soil, where no other willow could hope to hold its own, and make perfect cover in the second year. The stock of this willow is cultivated at the Craigmillar Nurseries near Edinburgh, and if it be as rapid in growth and as indifferent to soil as is claimed for it, this

should be a plant of great value for marginal planting.

Mountain Pine (*Pinus montana* or *Pumilio*), North Tyrol.	A lover of wind; makes a densely branched shrub some 10 feet high; does well almost anywhere.

Other trees that are useful on the fringe of the wood are the various crab-apples, wild-cherry, myrobolan plum, mountain ash, bird-cherry, maple, birch, alder, holly and yew; the last two named will thrive in any soil.

FRUIT-BEARERS OF LOW HABIT

Berberis (syn. *Mahonia*) *aquifolium* (Holly-leaved Barberry), N. America, about 1820.	An evergreen shrub 2-6 feet high; shade-bearer, makes excellent cover; bears yellow flowers in early spring, followed by large dark purple globular berries. Practically rabbit-proof once established.
Berberis vulgaris (Common Barberry), indigenous.	Deciduous shrub 4-7 feet high; has golden-yellow flowers and long orange-scarlet berries; practically rabbit-proof once established.
Berberis Darwinii (Darwin's Barberry), Chili, about 1850.	An evergreen shrub 6-10 feet high, densely branched and spreading; makes good under-cover; has deep orange blossoms and purple berries; practically rabbit-proof once established.

Corylus Avellana (Hazel), indigenous.	The common hazel of our woods; excellent under-cover.
Cotoneaster Simmonsii (Simon's Cotoneaster), Himalayas, 1850.	Sub-evergreen shrub, about 6 feet high; orange-red berries; a valuable covert plant; practically rabbit-proof once established.
Gaultheria Shallon (American Partridge-Berry), N. America.	Dense-growing shrubs of low habit, flowers white, succeeded by small red berries of which pheasants are fond; partial shade-bearers; practically rabbit-proof once established; will not do on chalk soils.
Leycesteria formosa (Himalayan Honeysuckle), N. India, about 1820.	Deciduous shrub of rambling habit, 4-10 feet high; increases rapidly by self-sown seed; partial shade-bearer and good under-cover; has purplish berries attractive to game.
Ligustrum vulgare (Common Privet), indigenous.	Low evergreen shrub, 6-10 feet high; partial shade-bearer; useful covert plant; bears purple-black berries; does best in moist, strong loam soil, but can be relied on to flourish almost anywhere.
Ligustrum ovalifolium (Oval-leaved Privet), Japan, 1877.	Sub-evergreen shrub.
Pernettya (some twenty varieties).	Small hardy bushy plants; good under-cover; bearing masses of various coloured berries of, however, somewhat uncertain attractions to game; practically rabbit-proof; partial shade-bearers, will not do on chalk soils.

Rosa rugosa (Japanese Rose), Japan, 1850.	The best rose for game-coverts; robust and hardy; partial shade-bearer; spreads rapidly by suckers and makes a dense bush 4-6 feet high; the large orange-red hips are much liked by game; practically rabbit-proof.
Rubus fruticosus (Common Blackberry), indigenous.	Good under-cover; propagated by layers and suckers; shade-bearer.
Rubus deliciosus (Rocky Mountain Bramble), N. America, 1870.	The finest of the brambles; a shrub 3-6 feet high, of vigorous growth in the open.
Rubus Idæus (Common Raspberry), indigenous.	Spreads by suckers; common in many woods.
Rubus phœnicolasius (Wineberry), Japan, 1877.	Strangling bramble of vigorous growth, about 10 feet high, large fruit, sweet and juicy; handsome foliage; practically rabbit-proof.
Sambucus racemosa (Scarlet-fruited Elder), N. Europe, 1596.	Shrub or small tree 10-20 feet high; requires moisture; strong grower; free fruiter.
Symphoricarpus racemosus (Snow-berry), N. America, 1817.	Deciduous shrub 4-7 feet high: excellent covert plant, partial shade-bearer, propagated by suckers; does in almost any soil and spreads rapidly; bears white berries, persistent through winter, much liked by game; practically rabbit-proof; there is also a red-fruited variety.

Viburnum Opulus (Single Guelder Rose), indigenous.	Deciduous shrub 6-15 feet high; bears blackish-red berries of which pheasants are very fond; rabbit-proof.

USEFUL NON-FRUITING PLANTS FOR UNDER-COVER

Azalea pontica (Common Azalea), Caucasus, 1793.	Shrub 6-10 feet high; does best in peat or sand.
Aucuba japonica (Variegated Laurel), Japan, 1783.	Evergreen shrub 6-10 feet high; bears bright-red berries of little value to game when male and female plants are grouped together; rabbit-proof; shade-bearer.
Blackthorn (*Prunus spinosa*), indigenous.	A thicket 10-15 feet high; useful in exposed places.
Box (*Buxus sempervirens*), indigenous.	Evergreen shrub of slow growth; suits chalk soils; makes useful under-cover; rabbit-proof.
Broom, Common (*Cytisus scoparius*), indigenous.	2-6 feet high; no better cover when not allowed to grow leggy; dry soil; shade-bearer.
Broom, Yellow, Spanish (*Spartium junceum*), Mediterranean, 1548.	6-12 feet high; does well in poor soil and exposed situations; rabbit-proof when once established.
Buckthorn, Sea (*Hippophäe rhamnoides*), indigenous, S. England.	Strong-growing shrub 1-8 feet high; bears orange-yellow berries of little value to game; practically rabbit-proof.
Deutzia crenata or *scabra* (Japanese Snow-flower), Japan, 1833.	Very hardy shrub 4-10 feet high; practically rabbit-proof.
Dogwood or Cornel (*Cornus sanguinea*), indigenous.	Hardy, fast-growing shrub; valuable under-cover; easily propagated by cuttings; good shade-bearer; practically rabbit-proof.

Dogwood, Red Osier (*Cornus stolonifera*), N. America, 1750.	Similar; prefers damp spots.
Hypericum Androsæmum, Tutsan, indigenous.	Shrubby St. John's Wort; prefers a sandy soil but will do almost anywhere; about the best shade-bearer; rabbit-proof.
Laurel, Common (*Prunus Lauro-cerasus*), Asia Minor, 1576. Laurel, Bay (*Laurus nobilis*), S. Europe, 1562. Laurel, Portugal (*Prunus lusitanica*), Portugal, 1648.	Evergreen shrubs of rapid growth; the common laurel requires shelter from frost and bears cutting over; the bay laurel grows into a small tree 50 feet high; the Portugal laurel is hardier than the common, and bears exposure. The variety sold as "Colchican" is quite rabbit-proof and well adapted for use in coverts. Laurels are not much liked by pheasants; but they make good shelter and flushing spots.
Lilac, Common (*Syringa vulgaris*), Persia, 1597.	Shrub 8-20 feet high; practically rabbit-proof.
Lilac, Japanese (*Syringa japonica*), Japan, 1885.	The hardiest and most robust of the lilacs; indifferent as to soil, perfers sun; rabbit-proof.
Mock Orange or Syringa (*Philadelphus coronarius*), S. Europe, 1596.	Shrub 10-12 feet high; good under-cover.
Neillia opulifolia (Nine Bark), N. America, 1690.	Shrub 3-10 feet high, resembling spiræas in appearance; spreads rapidly in congenial soil.
Polygonum cuspidatum.	Shrub-looking, tall herbaceous plant, 6-9 feet high, hardy, easily beaten, spreads rapidly, retains foliage till late.

Rhodendron ponticum, (Common Rhododendron), Spain, 1763.	Hardy, spreading, evergreen shrubs; practically immune from rabbits. Pheasants do not take very kindly to them but they make good shelter and flushing spots.
Ribes sanguineum (Flowering Currant), N.W. America, 1826.	Shrub 4-8 feet high, fragrant rosy flowers, impatient of much shade.
Spiræa (various).	A genus of hardy shrubs, making good undercover; many species are in cultivation in this country of which some are adapted for almost any soil and situation; *Spiræa Douglasii* is probably the best for undercover.
Veronica buxifolia, N. Zealand.	Evergreen shrub 2-3 feet high; shade-bearer.
Veronica Traversii, N. Zealand, 1873.	Evergreen shrub 2-6 feet high; one of the best and hardiest; will thrive in almost any soil; spreads freely by seedlings under favourable conditions; a rapid grower; shade-bearer.
Viburnum Tinus (*Laurustinus*), S. Europe, 1600.	Glossy evergreen shrub 6-10 feet high; rabbit-proof when once established.
Weigelia (Bush Honeysuckles), China and Japan, 1844.	Deciduous, free-growing shrubs 6-10 feet high; several varieties in cultivation; will do any soil.

Bare woods may also be underplanted with such forest trees as beech, silver, Douglas, spruce and hornbeam, which will

all bear shade as young trees; American Arborvitæ, holly and yew can sometimes make useful under-cover.

GRASSES

Tufted Hair-Grass (*Aira cæspitosa*).	Grows in large tufts or hassocks, making good cover.
False Oat-Grass (*Arrhenatherum avenaceum*).	A coarse, strong-growing grass.
Wood Wheat-Grass (*Brachypodium sylvaticum*).	The best shade-bearer; makes coarse herbage in moist places.
Giant Brome Grass (*Bromus giganteus*).	A coarse, luxuriant grass.
Schraeder's Brome Grass (*Bromus Schraederi*).	Makes the coarsest herbage.
Wood Millet Grass (*Milium effusum*).	In good soil grows from 4-6 feet high.

CHAPTER VII

THE WILD PHEASANT

"THERE can be no doubt that if the pheasant were not artificially reared and annually turned down in this country it would soon cease to exist."[1] Thus Mr. Ogilvie Grant of the British Museum, the first authority on the natural history and distribution of game-birds, and if this unqualified assertion be true, then the heading of this chapter must be a misnomer, and little further remain to be said on the subject.

Yet it seems curious to reflect that the old English pheasant—as we like to term the original stock—managed to maintain his foothold in this country for some

[1] *Handbook to the Game Birds*, by W. Ogilvie Grant, 1897, vol. ii. p. 12.

fifteen hundred years and more without much assistance at the hands of man. Certainly in medieval times we occasionally come across references such as the following, which would seem to indicate that the practice of rearing by hand was not unknown.

Privy Purse expenses of King Henry viii. December 1532

Itm the xxij daye paied to the french preste the fesaunt breeder for to buye him a goune and other necessarys . . . . . xls

But these pheasants were probably aviary birds, bred and reared for the table, and had little intercourse with or effect on the wild birds, who must in the main have had to rely on their own exertions for the means of existence.

It is less than a century since the practice of rearing pheasants became at all well known in this country, and until its general adoption there is every reason to suppose that a race of wild pheasants, scanty in numbers, but sufficient to

maintain the margin necessary for continued existence, was scattered throughout our arable and woodland districts. Nor, in those times, was there any friendly hand to see the wild pheasant safely through the lean months of the year, or to thin the numbers of his natural enemies —and the records of vermin killed on some estates in the earlier years of game preserving give some idea of what their numbers must have been, when they were allowed to multiply unchecked.

The game-books of a hundred years ago, when pheasant rearing was practically unknown in this country, give no indications of a steadily dwindling stock, requiring repeated introduction of fresh blood to save an exotic bird from constantly threatened extinction. On the contrary, these old records of shooting point to a firmly established race, holding its own without much difficulty wherever the conditions were favourable.

Without going any further into the matter than this cursory glance into the

past, one is led to the conclusion that there has been a curious mistake made by many sportsmen and naturalists as to the status of the pheasant in Britain, and that the commonly accepted idea of artificial rearing being essential to its continuance is very wide of the truth.

The writer at least is convinced that the pheasant has by long residence acquired a place among our native birds, and further is so thoroughly acclimatized among us, that the chances of survival of this stranger from far lands are probably better, under purely wild conditions, than those of the indigenous black-cock.

There are of course many parts of the country where wild pheasants will never thrive, and many others where their presence is undesirable. Wild pheasants and foxes can only be maintained on the same ground by artificial assistance of the one or strict limitation in the numbers of the other, and unless the laborious system of safeguarding the eggs—so successfully initiated at Euston—be resorted to, there

can never be much hope of pheasants doing well by themselves where foxes are extensively preserved.

On good partridge ground again—and, generally speaking, it is exactly on ground that comes within this definition that the wild pheasant is best calculated to thrive — pheasants can never be encouraged without affecting the interests of the more popular game-bird.

Apart from this wide area—amounting to at least one-half of the whole country—where either of these conditions prevailing place wild pheasants out of the count, food, soil, shelter and an uncertain and indefinable something that can only be rendered as 'ground on which game does well' are all that is necessary to produce a race of wild birds.

While cold, water-logged clay is fatal to the welfare of all game in this damp climate, the wild pheasant will thrive in varying degree on almost every other kind of arable land. The warm, light sandy soils of East Anglia come nearest

to the ideal country for game, and in favourable seasons produce an amazing number of wild-reared pheasants, the regular and heavy crops of acorns in these sunny counties providing abundance of natural food through the winter months. But although our eastern seaboard is peculiarly favoured by nature, there are many other places where the wild pheasant is the main feature of the shooting, and many more again where his potential virtues are only unknown through hand-rearing denying him any field of activity.

Outside the eastern counties thousands of true wild-bred pheasants are killed every year on such widely separated estates as Beaulieu in Hampshire, Gorhambury near St. Albans, Acton Reynold in Shropshire, and Langholm in Dumfriesshire. At his own Galloway home, where the shooting has been let for many years, some 5000 pheasants are annually reared and shot; but the writer feels fairly confident that if the wild

pheasant was encouraged in every way nearly 2000 might be killed each year on the same ground without the use of a single coop.

Shelter is a most important consideration for the welfare of the pheasant. Wild birds can do well enough in an open country through spring, summer and autumn, and in September it is common enough to see great numbers of pheasants in the turnip fields of some cultivated district, where the crops and a few thin hedgerows are all the available cover. But with the approach of cold weather all these birds will be gone, wandering for miles until they find warm woods for winter quarters.

Even where considerations of economy forbid any thought of planting regular woods in a bare country, much can be done towards encouraging a resident population of wild pheasants by fencing off and planting odd corners of little or no value to the farmer, but serving to give game the shelter and quiet they

need so much. A little oasis in the desert of this kind is often a great help to the keeper, giving him somewhere to keep up a feed, which of course he cannot so much as attempt in any place to which farm stock have access.

Regular feeding is essential to any success with wild pheasants in almost every case, for they have an even stronger tendency to wander than hand-reared birds, and it is the only way to collect them for shooting days. The actual amount of food is not so important as the way it is given; the real object being not so much to sustain life as to keep the pheasant busily engaged hunting for his food at home instead of seeking it abroad. If the corn is buried in a heap of chaff, where the birds will be kept picking and scratching all day to find the scattered grain, it will go twice as far as if it were just thrown down for them to find and take their fill of without any effort on their part.

While the wild pheasant has certainly

been given but little attention in the past, signs are not wanting that he may soon receive some of the care and consideration that have been so freely and profitably lavished on the partridge of late years. The demand for small, rough shoots is steadily increasing, and on many estates, where hand-reared birds have been entirely relied on in the past, the economy enforced by changes in the times is giving more encouragement to wild birds, and more scope for careful study of their habits under less artificial conditions.

Some few winters since the writer took part in a pleasant covert shoot within thirty miles of London. The rises were good, with birds enough for the most exacting. Surprised to learn that no pheasants were ever reared there, he wrote to ask his host for some information on the subject, and in return Lord Verulam most kindly supplied him with the following account of his wild pheasants :—

Gorhambury, St. Albans,
November 4, 1912.

I will first answer your queries seriatim, and then add a word or two about our wild pheasants which seem to be of interest, and which you can use or not as you think advisable:—

1. Acreage of woodland.—

(*a*) Shot in one day—a wood nearly 200 acres.

(*b*) Shot together in one day { 1 wood about 60 acres. / 1 wood about 40 acres.

(*c*) ditto { 6 small coverts, the largest about 18 acres.

(*d*) ditto { 9 small coverts, the largest about 8 acres.

Also a few small springs, but not enough for a regular day's shooting. The whole would amount say to 450 acres wood. The acreage of that part of the estate the shooting over which we reserve is about 5800 acres.

2. Average yield of wild pheasants.—From 1400 to (last year) nearly 2000.

3. How far total varies with seasons.—Not much: the usual bag is from 14 to 15 hundred pheasants per season.

4. How much pheasants have to be fed.—Not at all between April and October, after which maize is thrown down in the woods in proportion as they require it. (In 1910 total maize during year, 27 quarters; also 8 loads of barley in the straw.)

5. Influence of neighbouring rearing-fields in maintaining numbers.—There are three small

properties that march with ours, on which a few hundred pheasants are turned out, but as we see our young broods with their parents all over the fields before the reared birds have left the coops, I should say that we gain very few if any birds from our neighbours, while it is certain that they, by leaving crops standing and constant shooting, get a large number of the pheasants which have been reared on our land. The nearest rearing-field of any of these would be between one and two miles from our main coverts.

6. Any new blood introduced.—No, I am a confirmed believer in in-breeding, believing that thus you obtain a race which is most fit for the conditions prevailing in the locality.

Having now answered your queries, I trust you will allow me to describe how, in my opinion, that (so-called) bad mother, the hen pheasant, came to be such a model matron, as she undoubtedly is, on this estate.

Many years ago it occurred to me that it might be possible to improve the parental qualities of the pheasant by the force of example, and, having learnt that the period of incubation of that excellent mother the partridge, was the same as that of the pheasant, I instructed my keepers to place two pheasant eggs in each of a large number of partridges' nests, with the result that I have myself seen the young pheasant at an early stage of its life in the covey with the young of the partridge.

This was continued for several years, and no pheasants have been turned out for a long time, and though I cannot, of course, state definitely that our remarkable show of wild pheasants is the direct result of this experiment, still, unless a better explanation can be suggested, I think myself justified in believing that the object with which the idea was associated has been, so far as I can see, attained.

For we have actual experience of the hen pheasant sitting through 60 hours of rain, and hatching 11 chicks out of 12 eggs, while two partridges in the same covert close by (presumably being the smaller birds and so unable to withstand the weight of rain) gave up and left their nests, after 40 hours of the same storm.

Our pheasants are all over the fields in September, and seem to care nothing about the coverts, which seems to be witness of the influence of the teaching of the partridge coming out in the foster children.

I ought to mention that we shoot cocks and hens the first time over, without limit, and spare all hens afterwards.

In regard to a further query as to the question of pheasant eggs hatching before those of the partridge when under a common mother, Lord Verulam added the following note :—

With regard to the putting of pheasant eggs into partridge nests—my recollection is that Mr. Tegetmeier told me that the period of incubation was the same in both partridges and pheasants, but it is a long time ago, so I will not swear positively. But whatever the period may be, I started the experiment after hearing what he said, and it seems to have been successful, so I must leave it at that. I never heard of eggs being left in a nest unhatched, at least not in any way which would be considered unusual.

From my own experience, I can bear witness how useful the wild pheasant can be on a small and unambitious shoot. I have the shooting over a dozen farms in grey Galloway, a land of rounded hills rolling down to the sea. The fields are large, divided by stone walls, the average area under cultivation being perhaps one-fourth of the whole: the woods are small and scanty in number, but all over the ground there are scattered patches of what my keeper terms roughness, where a steep bank or an outcrop of the silurian rock forbids the passage of the plough, and the heugh or knowe is covered with a tangle of bracken, briar, whin, and sloe.

Though much exposed to wind and storm, this is naturally good partridge land, and doubtless the encouragement that we have given the wild pheasant has lowered the maximum number of partridges that the ground will carry. But if we have sacrificed a little (and that only potentially, for of late with each recurring year the cold and wet of mid-summer hurry the infant partridges out of existence, leaving ample scope of ground for the survivors) we have the distinct gain of having two strings to our bow.

This present year (1912), had we discouraged the pheasant and studied the interests of the partridge alone there would have been practically no shooting at all, for September found fewer partridges on the ground than were left for stock at the close of the last season. As it was, the earlier nesting pheasants escaped the stress of weather that decimated the young partridges, and can now be relied on to furnish the staple of some pretty days of mixed shooting.

In short, we have reduced the 1000 partridges, which was about the limit the ground could produce, to about 800; adding thereto some 500 pheasants in a favourable year,[1] with every hope that the same season will not see a total failure of both our game-bird crops.

As to questions of board and lodging, the latter consists of the natural roughness already described, and a self-sown growth of birch and bracken in the few plantations, where the timber trees have all along since been laid flat in some of the great gales from which we periodically suffer.

In the main they have to find their own living, with an occasional sack of refuse from the threshing-mill to keep them from straying too far afield. They are only regularly fed to collect them for the shooting, without which precaution the wild pheasant is apt to be absent when most wanted.

[1] In this estimate the pheasant is considered as two-thirds a competitor with the partridge living on the same ground, and one-third an independent and non-conflicting existence.

Setting much store by our wild pheasants, we have of late been laying out an odd wood here and there to ensure shelter in winter. Rough stretches of ground, of little value to the farmer, have been carefully selected with some thought of position, exposure, and water. A plan of the last completed wood may not be without some interest as showing one notion of what an ideal covert for pheasants should be, limited only by a strict regard for economy.

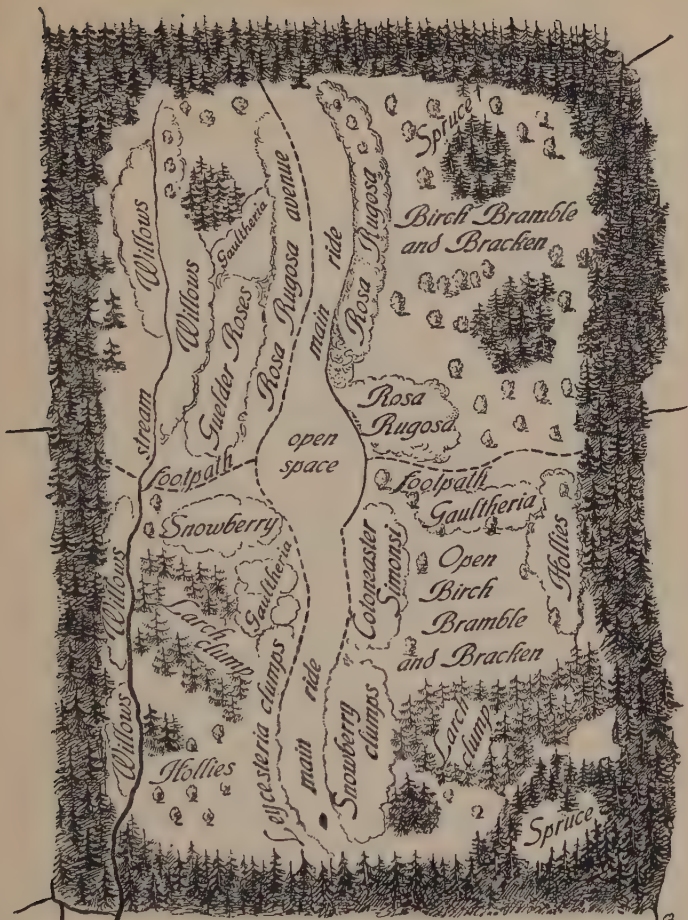
The wood shown in the diagram is about 600 yards long by 400 broad, the ground sloping gently to the south. Enclosed by dry stone walls on three sides, the marginal wind-break is of great importance; to ensure good shelter the encircling belt consists of a double row of the low-growing, wind-loving mountain pine along the outside, protecting the four close rows of the quick-growing Sitka spruce, which are relied on to break the force of every wind that blows.

The main ride runs in curves from east

to west; its width is generous, while a central open space gives the pheasant a sheltered spot where they may sun themselves. A narrow foot-path runs north and south across the wood. Small clumps of spruce are dotted about here and there for roosting-trees, while two large patches of Japanese larch give some hopes of profitable forestry, providing at the same time covert that pheasants love for the next fifteen or twenty years, at which age they may be renewed or replaced by something else.

The natural growth of birch, bramble and bracken is allowed to remain in patches, but is generally supplanted by numerous clumps of berry-bearing shrubs, with willows along the banks of the stream, and what we hope will be a notable avenue of Japanese rose, along either side of the main ride.

Even in our soft western climate, where trees and shrubs grow apace, ten years must elapse before we may hope to see the full reward of our labours, but the



Encircling Belt of Mountain Pine
and Sitka Spruce

planning and planting of the woods made a nice excuse for many happy days in the open air. A ten-pound note went far to meet expenses once the rabbits had been eradicated.

A well-marked valley separates the S.E. corner of the wood from the nearest rise in the ground, where a wood, very similar in outline, will go far in the future to make a fine rise of pheasants possible independent of the wind, for either wood may be used as the flushing cover, and the other driven blank into it, according to the quarter of the wind on the day of the shoot.

Lying among fields under the plough —and cultivation is almost essential to the pheasant, in a locality where experience, the only safe guide, has shown that wild birds will thrive, it will be an interesting experiment to note how the provision of this wood—especially designed to meet their requirements—will in future years affect the number of birds to be found on the ground in late winter.

CHAPTER VIII

THE REARED PHEASANT

WHILE the wild pheasant may not, of late years, have been given quite the consideration his merits deserve, the hand-reared bird must always keep his place, under the present conditions of sport, in all but singularly favoured districts, as the main feature of winter sport with the gun.

No game-bird suffers from so much indiscriminate abuse. Each year, when the calendar marks 'Oct. 1st, pheasant shooting begins'—papers of weight and standing find space in their columns for amazing journalistic efforts on the subject of the pheasant. To take but a few lines from an article in one of the most sober

and usually well-informed among the members of our daily press :—[1]

> This aristocrat among birds does not pay great attention to its young, and the majority of preserved pheasants are reared by hens or incubators.
>
> Many of the young ones die of over-eating. Soups, pastries, and custards are among the dainties prepared for them, and they eat voraciously. When their baby days are over they come to the call for food, and so are shot in hundreds. This fact makes pheasant shooting a more tame sport than it might otherwise be.

It is somewhat dispiriting to think that for every reader these pages on the pheasant and his ways may chance to find, thousands of people must solemnly assimilate such stuff as the above; for the excerpt quoted is by no means unique, being a fair enough sample of its kind, only redeemed by its unconscious humour, pleasantly tickling the imagination with an inspiring mental picture of the 'annual battue.'

But in this respect we still seem to live in the dark ages. The alliterative attrac-

[1] Article in the *Yorkshire Post*, October 1, 1912.

tions of 'hand-reared and half-tame' never fail to entice the unwary writer, who then proceeds to blame the sport for the lack of skill it demands, not in woodcraft, wherein he might find ample justification for his criticism, but in marksmanship forsooth, the one unassailable quality with which the pursuit of the hand-reared pheasant is indued.

Nor, indeed, is there any difficulty in definitely determining the place of the hand-reared pheasant, compared with all other birds of chase, as a mark for the gun.

Some few years ago that venerable periodical, *Baily's Magazine*, invited opinions from the acknowledged masters of the art of shooting in this country on the question of what was the hardest bird to kill.

Those who answered spoke with the voice of authority; they had all seen every kind of shooting that these islands afford; had shot the driven grouse in Yorkshire dale and Highland corrie, and

followed a brace of handsome setters or silky pointers where the western glens run down to the sea; had stood on the autumn stubbles and seen the driven partridge swinging high over the fir belts of East Anglia, or skimming across the low stone walls of the north country; the twist of the snipe, the swerve of the woodcock, the 'jink' of the wary pigeon, and the leisurely flight of the deceptive black-cock, were alike familiar to them, nor had they failed to trust ear as much as eye at the evening flight, and pull down the half-seen duck from the darkening sky. And this was what they said, if the rough notes in a pocket-book lie not:—

Lord Walsingham and Hon. A. E. Gathorne-Hardy—a lowish *pheasant* straight overhead to which you have to turn round.

Lord de Grey—a high *pheasant* downwind, dropping and curling.

Lord Ashburton—*pheasant* 35-40 yards away, crossing and dropping.

Mr. F. Fryer—a low skimming *pheasant* against a dark background.

Mr. R. Hargreaves—second barrel at teal; ptarmigan driven round top of hill.

Lord Westbury—cock *pheasant* dropping and curling with outstretched wings.

Mr. T. S. Pearson-Gregory—*pheasant* skimming with a curl from hillside above.

Hon. A. Portman—*pheasant* crossing high on right.

Mr. H. W. Gilbey—real high *pheasant.*

Major A. Acland-Hood—*pheasant* crossing low on left.

In the light of such expert evidence it is safe to conclude that in the ordinary walks of shooting—setting aside birds of occasion only, such as the stock-dove, to whom the writer from his own more limited experience would award the palm of invulnerability—all the most difficult shots presented to the gun are not to be found among the wilder grouse or partridges, but are almost always offered by some variety of the more homely pheasant—whether high or low, overhead or crossing, dropping, skimming or curling.

Nor does it make any appreciable difference whether the pheasant in ques-

tion be wild or hand-reared; the popular opinion — almost universal among the uninformed—that the mere fact of a bird being hand-reared makes it easier to shoot, is, of course, simple nonsense; a century of artificial life and surroundings in no way affects the flying powers of a race of pheasants, and the well-planned rise of hand-reared birds remains, in spite of all adverse criticism, the supreme test of efficiency with the shot-gun.

The man who has built up his reputation by shooting hand-reared pheasants cleanly and consistently need fear no rivals in the field; he may with every confidence take on the celebrated snipe shot over his own native marsh, or the noted local wildfowler at the evening flight, and expect to beat them at their own game, for his training in the use of the gun has been of a higher order than theirs. There is a common notion that to shoot high pheasants well is a mere knack, easily acquired by any one who has the chance of regular practice, whereas in reality it is

rather the branch of shooting demanding the nicest judgment, most careful timing, and highest degree of accuracy to attain any proficiency in its practice.

Apart from his undoubted quality as a mark for the gun, the strongest claim that the reared pheasant has on our consideration is the comparative ease with which he may be produced. A few woods, a little cultivation, and a certain expenditure of time, trouble and money, produce with a regularity never attained by grouse moor or partridge manor, pleasant days of winter sport in thousands of places where, without artificial aid, there would be little or no sport at all.

Now that the art of rearing pheasants has long since passed the experimental stage, it would really seem of little practical value to enter here into a long explanation of the many details of the rearing-field, although it is far easier to lay down all the rules of the business than to carry them into practice.

The commonly accepted methods of

hand-rearing are fully given in the catalogues of every game-food manufacturer, the notes and hints in which are usually written by some keeper of experience. Without wishing to give any one a free advertisement it may be pardonable to note in particular Messrs. Gilbertson & Page's handy little pocket manual of pheasant rearing, which this enterprising firm sell at the modest price of sixpence. In so far as the merits of their own productions are concerned, we cannot hope to find any manufacturers at once impartial and commercial, but on the general questions of management this little treatise is sound and sufficient. Any who wish to keep abreast of the times in their methods of rearing, will find all they want among the monthly numbers of the *Gamekeeper*, in whose pages many keepers from time to time discuss their difficulties, and offer hints from their own experience.

For practical experience is, after all, the only safe guide, and after making an expedition last summer round some of the

best managed rearing-fields in the country, from Warter and Wentworth in the north to Gwernyfed, Powis, and The Hendre in the west, and Holkham, Elvedon, and Glevering in East Anglia, what impressed the writer most was the widely different methods by which the various keepers reached the same end. Each had made a lifelong study of his own surroundings, and has arrived at the system — little drawn from books, and largely from his own experience—best suited to the conditions under which he has to work.

The one common trait to be found among all pheasant rearers who are consistently successful above their fellows, is a certain love of method carried through to the smallest detail. Their scrupulous regard for cleanliness in every particular—be it hens, food, coops or utensils—might well seem a virtue carried to excess, were it not obvious that the wonderful results that they can show through good and bad seasons alike are due, not to any special secret of the art of rearing, but rather to

a dislike, almost amounting to horror, of all things slipshod, slovenly and above all else dirty, exaggerated though this characteristic may seem to those who like taking things more easily.

Making every allowance for the thousand and one seemingly inevitable mishaps which happen in rearing-fields, taking into consideration all the differences in climate, soil and surroundings under which gamekeepers in various parts of the country have to work, it would still seem safe to say, 'Show me the man's aviaries, sitting-boxes, coops and cooking, and I will hazard a good guess as to the results he achieves, without going any further into the matter.'

Where you notice that every article and accessory is arranged and laid out with the care and precision you would expect to find in the camp of a battalion of Guards, you may be quite sure that the percentage of birds turned down into covert will prove to be abnormally high, and that year after year the young

pheasants enjoy a strange immunity from the scourges that periodically decimate the rearing-fields; for this is no mere 'eyewash'; it is the outward and visible sign of the man who leaves nothing to chance.

Where, on the other hand, things generally look unkempt and uncared for, the first impression usually proves something more than merely superficial. Appearances are not always deceptive, and you may now expect to find the percentage of survivors materially lower, with a ragged average over a period of years, easily accounted for—as will be fully explained to you—by the disadvantages of soil and climate, the manifold difficulties and handicaps peculiar to the place.

This aspect of pheasant rearing has been somewhat strongly insisted on, because its importance is even now not always appreciated at its true value. Disasters, when they occur, are so plausibly attributable to natural causes beyond human control, and on the very estates which one

might reasonably expect to serve as a pattern for all the rest, places where ten or twenty thousand pheasants are commonly reared, a strange neglect of most necessary precautions is sometimes noticeable.

On a tour of inspection the particular which gave chief offence was generally the condition of the sitting-boxes and their surroundings, and the writer has seen this first home of future trouble in a state that would give a Sergeant-Major—typical exponent of the cult of cleanliness—a fit on the spot, on an estate too, where no expense was spared to make the shooting among the best in the country.

In this case the common failure to maintain a high level of production was set down to the 'hungry' nature of the land and consequent dearth of insect life; but the primary cause might have been found nearer home.

The quantities of disinfectants, paint, lime, and the labour to apply them count for little in the heavy expenses of ex-

tensive pheasant rearing, and there should be no excuse possible for everything in the keeper's charge—from the drains of his aviary to the woodwork of his coops —not being kept in apple-pie order.

While we have expressly renounced all intention of following in detail the routine of the rearing-field, there are a few matters of general interest connected with the business which seem to call for brief mention. In the first instance there is the question of supplying the eggs required for the purposes of rearing.

There are still a certain number of places where the eggs picked up in and about the woods are exclusively relied on to supply the material for several hundred coops. But this system has surely little to recommend it from a practical point of view, involving as it must an undesirable uncertainty in result, combined with a heavy additional burden of time and trouble for the keepers in hunting for eggs.

Setting aside this practice of rearing

entirely from wild-gathered eggs, as hardly ever worth while on a large scale—for the reasons given above, and others sufficiently indicated when discussing the pheasant on partridge ground at the end of this chapter —we have still two regular sources of supply, the game-farm and our own penned birds.

Many good keepers have some distrust of eggs from game-farms, often based on unhappy experiences in former years. But of late strenuous rivalry among the many game-farms which have sprung into existence since the development of modern covert shooting, has practically eliminated all careless and casual competitors from the scene. Like Cæsar's wife, the modern game-farm must be above suspicion, for it could not hope to survive without maintaining a good reputation among its clients, and so all the approved firms in the trade may be confidently relied on to do all that lies in their power to satisfy their customers, if only in their own interests.

As to how far it may be advisable to rely on bought eggs to the exclusion of home-produced ones, this is entirely a matter of weighing the increased convenience against the increase of cost; there may be other factors affecting the matter, such as the overcrowding of game mentioned in a later page; circumstances alter cases, and only the convenience to all those engaged in rearing pheasants of reliable eggs being always available when wanted need be insisted on here.

One ingenious game-farmer has certainly increased his sphere of utility—and we will hope also of his business—by devising a clever system of supplying live chicks instead of eggs. He discovered by experiment that newly hatched pheasants packed in the small partitions of simple light boxes, covered over with flannel to preserve the normal temperature of the nest, not only survived long journeys across country, but arrived strong and lively at their destination. The writer spent an interesting afternoon on the

Chiltern Hills last summer watching the packing and despatch of these day-old chicks, each consignment starting off all complete with a hamper of broody hens strapped under the box.

The price of eggs is fairly consistent; only when what we may term named varieties are specified, folks must pay for their fancy. The usual tariff of charges may be given :—

PRICES OF PHEASANT EGGS

	Every Egg Guaranteed Fertile.
During April . . .	£4 10 0 per 100
After May 1 . . .	4 5 0 „
„ „ 6 . . .	3 15 0 „
„ „ 11 . . .	3 5 0 „
„ „ 16 . . .	2 15 0 „
„ „ 20 . . .	2 5 0 „
„ June 1 . . .	1 10 0 „

Day-old pheasants of the common English strain are quoted as follows :—

	Per dozen.	Per 100.	Per 1000.
May delivery .	17s. 6	£7 0 0	£65 0 0
June 1 to 15 . .	15s. 6	6 10 0	60 0 0
June 16 to 30 .	13s. 6	5 10 0	50 0 0
July . . .	11s. 0	4 10 0	40 0 0

As many broody hens as required can be supplied with the chicks at 2s. 6d. each.[1]

To make good any later losses in rearing-field or covert—and some proprietors insist on their keepers being responsible that a fixed number of birds are *shot* every year—grown pheasants may be bought at about 5s. a head and turned down up to the middle of September, after which month it is little use making any attempts to stock the coverts with strangers.

In general, most efficient keepers, with scope of ground to maintain a healthy stock of pheasants of their own, would not be in favour of buying all the eggs they require for the rearing-field, even where economy is not enforced.

For each egg is after all something more than fertile or infertile; hidden somewhere in the germ of life are all the acquired characteristics of the parent strain, and it would be unreasonable to expect chance-come strangers to develop

[1] From the price-list of the Gaybird Pheasant Farm, Great Missenden, whose proprietor, Mr. J. Carlton Hunting, originated this system of supply.

the same hereditary tendencies to adapt themselves to their surroundings that we may notice in natives of the place. This consideration becomes important where special qualities are required to make a success of the struggle for existence; thus in wet or cold climates young birds must have increased powers of resistance and a marked ability to shift for themselves, qualities only to be gained by long residence, while, in hunting countries, birds of a strain long subject to the tender mercies of the fox should show an early disposition to roost out of harm's way.

The keeper of experience rightly makes use of the produce of the game-farm to supplement, but not entirely to supplant, the efforts of his own birds.

While most are agreed on the advisability of keeping pheasants in confinement as the main source of supply for the eggs they require, there is much diversity of opinion about the best method to employ. Some — including perhaps most of the keepers on big shoots—favour the use of

a large aviary, constructed to hold a hundred hens and more, some prefer smaller fixed pens to hold twenty or thirty, while others—among whom it is interesting to note that most of the game-farmers are to be found—rely exclusively on the small easily movable pens, each containing one cock with whatever the individual considers the right proportion of hens, a number varying from five to eight.

While this is about the figure adapted to the capabilities of the ordinary cock, surprising instances of powers beyond the ordinary occur from time to time. Some three years ago, on a neighbouring estate, three cocks were penned with twenty-one hens. By the next morning two of the cocks had been vanquished and slain by the sole survivor; two fresh cocks, introduced to restore the balance, only survived a single day before sharing the same fate. The keeper, recognizing the presence of uncommon vigour, then left the warrior in undisturbed possession of his many

wives. Nor was his confidence misplaced, for the twenty-one hens averaged nearly twenty fertile eggs a piece.

Once the aviaries or pens are erected, there still remains the question of when they should be filled. Here again we are confronted by marked differences of opinion among keepers; some would have all the hens they require taken up by the middle of December, while others would not like to have a bird in the aviary for nearly two months later.

To make a note of these differences is enough, to attempt discrimination between their respective merits unnecessary, for each man works along the lines laid down by his own experience, and so long as he reaches the desired end, the road he travels by matters little, nor is any practical rearer likely to attach much importance to the casual criticisms of the writer on sport. If this book chances to fall into his hands, he may read these pages without fear of having hard and fast rules hurled at his head, for we

entertain too a wholesome respect for the methods—even though they amount to idiosyncrasies—of the man who habitually turns 90 per cent of his hatch into the coverts.

On the rearing-field all good keepers work on much the same plan, using the food that they have found best suited to their needs, keeping their young birds healthy and hungry—the latter always a distinguishing characteristic among the chicks of the successful rearer—using for the most part simple foods and simple remedies; only in one particular of any weight is there marked variance in their methods, some attaching considerable importance to giving their young birds at the coop a constant supply of good water, others never watering their birds at all. The former seems the more rational course, but when judged by results there seems little in it.

While we may thus pass over all the accepted methods of rearing in well-advised silence, there is one, so far little

known, system which seems to merit rather a close examination of its workings. The dry-food system, although first originated some years ago, has not yet met with much favour among keepers; in fact the writer had some little difficulty in getting in touch with any one who could speak of its merits from practical experiment. Eventually Mr. G. Evans, M.F.H., was kind enough to furnish him with the following account of his own experiences:—

THE KENNELS, ROPLEY, HANTS,
Dec. 28, 1912.

Feeding pheasants on dry food—no doubt this is the coming way for rearing pheasants, although the food is not quite perfect yet. I have tried several dry foods, and the foods I like best are Armitage's of Nottingham; therefore when I write about dry food, it will mean his food. He has Nos. 1, 2, and 3 foods. 1 and 3 are excellent, but birds do not seem to grow so well on No. 2 as they do on soft food. This year I added a little soaked wheat to his No. 2 food with the greatest success.

Dry food has many advantages over the old way: no cooking, no food lying about to get

stale—the latter a most important consideration; each keeper can look after many more coops, and besides the saving of labour in the field, the cost of foods should come to about £5 less per 1000 birds.

For some reason, best known to themselves, keepers like the old way. It becomes necessary, then, to let your keeper understand that if he cannot rear on dry food, some one else must be found who can. The one point that requires close attention is a proper supply of water. Good water must be given, preferably with a little sulphate of iron in it, and should be changed twice a day. On very hot days the water should be changed at midday.

This season (1912) I had five rearing-fields, all on different foods, one being on dry food, and the rest on wet foods. I lost over 4000 birds this wet summer on the four fields where the old methods were followed, having had every possible disease among the birds. On the dry-food field I lost about the usual percentage of a good season; and the dry-fed birds were the only ones that looked well.

Last season (1911) I reared 7000 on the dry food. This was exactly the opposite sort of year, very hot and dry. My dry-fed birds were then smaller boned than the rest. But since adding soaked wheat to the food (No. 2), I can notice no difference between them.

I have been playing with this dry food for

years and, after the experience of the past year, have made up my mind never to rear in any other way.

Taking the dry food mentioned in this letter, and so strongly insisted on as the best of its kind by one who has tried them all, we find that the chief ingredients in the Nos. 1 and 2 pheasant foods, besides the usual cereals and grains, are :—

Desiccated Preserved Egg Yolk.—Of this food Messrs. Armitage write :—"We have had a great difficulty in getting this article exactly to our mind, but now think we have succeeded ; it is rather an expensive ingredient."

Dried Flies.—Imported from Mexico by the ton ; they are caught by the natives in long nets stretched across the rivers and lakes, and then dried on the banks in the sun ; they keep sweet for a considerable time.

Finian Ant Eggs.—The best quality ; gathered by the peasants from the forests and taken to Central Depôt ; whence they are shipped during the late summer, as in winter time the ports are closed by ice.

Russian Ant Eggs.—Markedly inferior to the above ; only used when the Finian supply fails.

(Messrs. Armitage inform me that they use from 14-16 tons of dried flies and ant eggs every

season, in the preparation of foods for game and poultry.)

GRANULATED PRESERVED MEAT.—Imported in large slabs from America.

Now, although it has yet to be proved that the dry-food system of rearing is a satisfactory substitute in every case for the older method, there seems no reason, considering the advantages so clearly pointed out in the letter we have quoted, why every keeper should not give it a trial at a few coops in his rearing-field. A single season of experiment—the limit so commonly set on the trial of every novelty—is obviously worse than useless, for the results can only be inconclusive, and may often be directly misleading. Two or three years are the least time in which a definite opinion can be formed, yet how often have we all seen some new practice written down a failure after a single trial.

Further inquiries about the use of this system produced—as a by-product—an account of an experiment in dispensing

with a rearing-field altogether, which cannot fail to interest all pheasant-rearers, whatever they may think of the dry-food system.

A gamekeeper from Wales[1]—one of those who are not bound by tradition, but are ever ready to spare neither time nor trouble in improving their methods—informed the writer this year that he had lately spent a holiday in the eastern counties, where he found the dry-food system gaining ground, and always well spoken of by those who had given it a trial. He met one East Anglian keeper —apparently a man of some enterprise and ingenuity—who had made marked advance on usually accepted methods. In the first place this rearer bought the ingredients and mixed his own dry foods, from which he claimed to have got better results than with the foods prepared by the game-food manufacturers, effecting at the same time a saving of no less than 50 per cent on his food bill.

[1] Mr. J. Watkins, head-keeper at Powis Castle.

His methods of rearing are worthy of special notice. A pen of about 3 acres was enclosed by 5 feet of 3-inch mesh wire netting inside a wood, the ground being clean in the bottom, and the trees not too close grown to keep out the sun. Into this pen he put 700 chicks with the usual hens and coops, taking particular care that all the chicks were exactly of the same age. When the young birds were three days old, he let all the hens out of the coops, giving them the liberty of the pen with their broods. The chicks could pass through the 3-inch mesh of the wire netting, and so came and went at will, the hen being always at hand inside the pen to lead her brood into the coops for the night and in wet weather. As soon as the young birds were strong enough to pass through the wire, they were fed outside, and the hens inside, the enclosure.

The same keeper had young pheasants on the rearing-field fed on exactly the same food, and he found that his wood-

reared pheasants easily out-distanced the others in growth.

Once his pheasants are grown and turned down in covert, the chief concern of the gamekeeper is to keep them living at home until the time of shooting. To curb their natural straying propensities, a host of much vaunted non-straying mixtures are advertised in the columns of every sporting paper, their merits fortified by testimonials from many gamekeepers; the writer can only say that in his own experience he has never met a keeper of any standing who would have a single word to say for such doubtful expedients. The good keeper never thinks of drugging his charges with curious condiments, but relies on his own knowledge of his birds and their ways to keep them from straying.

Occasionally on small estates where a heavy head of pheasants has been reared, or in places where the park lies in the centre of an industrial district, special measures have to be taken to keep the

pheasants at home, men or boys being regularly employed as permanent 'stops'; on one estate in the Black Country, where 25,000 birds are turned down into the coverts every year, no less than fifty-six men and boys are employed, one way and another, to look after them.

Reared pheasants are more than usually subject to the depredations of vermin during their sojourn on the rearing-field, and one of the keeper's most trying duties is to protect his charges from their enemies.

Apart from the fox, who has an importance which we have already recognized by giving him a whole chapter to himself, the commonly accepted enemies of the game-rearer are, on the ground, stoats, weasels, rats, hedgehogs, poaching dogs and cats, and, in the air, magpies, jays, hawks, hooded and carrion crows, rooks, owls, jackdaws. All these the keeper usually destroys at sight in the neighbourhood of his rearing-field.

To comment on his list we would first

ask him to include mice among his ground vermin, for they are not above suspicion as egg-stealers, and are in any case no desirable feature of the rearing-field ; nor is there any danger of their extermination.

Among winged vermin we would put in a plea for the handsome jay, whose misdeeds have been much exaggerated. Although we cannot urge as much for the magpie, still he is a pleasant object to the unprofessional eye, and he might well be tolerated, in strictly limited numbers, without great harm to game. This, however, is but a counsel of perfection, for few keen gamekeepers, with the welfare of their charges at heart, could be induced to acquiesce willingly in the preservation of a nest of magpies on their ground.

The owl is always a difficult problem. Nothing can be said for the recently introduced and rapidly spreading little owl in the southern counties, and but little for the short-eared owl in the northern districts where he breeds. The

tawny and long-eared owls are proved—if occasional—sinners in regard to young pheasants; only the barn owl has a clean bill of health, the utmost that can be brought against him being the charge of 'conduct calculated to create despondency and alarm'—in the wording of the Army Act—among the young pheasants going to roost, by hunting near by. Now, where foxes are many, one of the keeper's chief anxieties is to induce his young pheasants to roost in the trees, and when he finds that marauding owls—although actively engaged in the laudable business of killing mice—have incidentally driven all his birds down to pass the rest of the night on the ground, his annoyance, passive or active, can at least be readily understood, if not condoned.

The truth is that from countenancing indiscriminate slaughter we are now in danger of reaching the other extreme by commanding equally indiscriminate preservation. Take the case of the kestrel; for the last ten years this falcon has been

praised by every writer on natural history, with strong condemnation of the keeper ignorant enough of his business to look on the kestrel as an enemy to his game. Yet when the writer took counsel of some of the most intelligent men engaged in the business of rearing pheasants to be found in the country, they were almost unanimous in expressing their opinion that they would far rather see a sparrow-hawk than a kestrel among their coops.

The utmost we can fairly ask of our keepers, unless we give them direct orders to spare certain birds, not because they are innocuous to game, but because they are desirable in other ways, is to make up for a certain stringency of law, very necessary to the welfare of the rearing-field, by a corresponding latitude for the rest of the year, and to destroy nothing on suspicion.

Above all, let no one who wishes to be thought reasonable try to tell an observant keeper that kestrels, weasels, and all

owls—whatever their other services to mankind may be—are always good friends to game. It may be, and quite probably is, wise to protect all owls, kestrels and even, just conceivably, weasels; then let it be done with a frank recognition of their position as capable of doing harm to game, but more than compensating for it in other ways.

Certainly the worst enemies of the pheasant rearer are to be found among foxes, rats, the family of crows (including hooded, carrion, rook, and jackdaw), stoats, hedgehogs, weasels, and what may be termed the habitual hawk (that is an individual who has regularly taken to visiting the coops). The rearing-field which is free from the presence of all the above, need have little fear of more occasional sinners, among whom we must also count the badger and the otter, the latter having been caught red-handed killing pheasant hens in an aviary about a year ago.

Pheasant old maids or widows, and less

commonly bachelor cocks, will often take offence at the proximity of the rearing-field, and emerge from the coverts to work havoc among the chicks, their immediate destruction being then imperative. Mr. Grimble notes that on one occasion, at Kilmaraig in Argyle, he saw an old drake from the farmyard swallowing a pheasant chick, and subsequent dissection revealed two more chicks as big as tennis balls already inside. In 1912 Mr. Maurice Portal informs me that at Beaufort, near Hexham, a cock partridge, whose wife had been eaten on the nest by a fox, came to the rearing-field and killed fifty-six young pheasants in four days, before being shot himself.

Disease	Symptoms
Canker (Mycosis of air-passages).	Difficult breathing; moping; mouth full of yellow cheesy material; usually fatal among chicks, windpipe and lung being affected.
Coccidiosis (= White Diarrhœa of poultry breeders).	Drooping of chick's wings; habit of constantly looking downwards; increased appetite and thirst, accompanied by wasting;

Young pheasants on the rearing-field are peculiarly liable to many forms of diseases; only constant care and scrupulous cleanliness on the part of the management will serve to keep the more weakly chicks — which would never have survived at all under natural conditions — from becoming the focus of some fatal outbreak. Without entering into a long dissertation of ailments and cures, it may serve our purpose here to give a brief list of the commoner troubles and their symptoms:—

Cause	Cure
Mouldy or dirty food.	Prevention by cleanliness and keeping grain stored in a dry place.
Usually occurs in hot, dry seasons; infection introduced by affected hens, or from previously fouled ground; spreads rapidly	*Prevention* to some extent possible by care in selecting hens and clean ground to rear on. *Direct Treatment.*—Catechu

Disease	Symptoms
Coccidiosis (*Contd.*)	pale colour and fluidity of droppings; loss of head feathers and bluish appearance of all exposed parts; offensive breath, emaciation and sudden death; very infectious and almost always fatal to birds less than a fortnight old.
Catarrh.	Simple cold; when neglected may turn to Roup (q.v.).
Cramp (so-called).	(1)=Sunstroke; staggering gait, followed by bird falling over and lying kicking on its back till killed by suffocation. (2) Appearance of cramp in legs; not necessarily fatal, but leaves birds weak or crippled—only prevalent among newly hatched birds. (3) Usually attacks chicks about a fortnight old; cramped legs, followed by fracture of bone, and eventual death from exhaustion; considered infectious.
Diarrhœa (Scour).	Common among all young pheasants.

Cause	Cure
from buried diseased birds, ground on which an outbreak has previously occurred, from which it may be wind-born to fresh land adjacent, or carried by sparrows from infected poultry yards.	in drinking water—10 grains to the gallon for a fortnight.[1] *To limit Outbreak.*—Burn all corpses, droppings and food débris of infected birds; place food and drink on movable boards, which should be frequently washed; lime-wash all coops, etc., weekly; remove all healthy birds to fresh ground, and lime fouled ground to a depth of 18 inches.
Undue exposure to wet or cold winds.	Stimulating food, or sulphate of iron (1 drachm to 1 pint of water) in drinking water.
(1) Exposure to sun.	(1) Place affected birds immediately in deep shade and cool place; cold water to drink.
(2) Prevalent during long periods of cold north-east winds and dry weather.	(2) "Moorman" found rice soaked in spirits of turpentine efficacious.
(3) Wet soil or sub-soil.	(3) Burn all patients; remove coops to high and dry ground.
Wet weather, or from eating hard-boiled eggs.	Change of diet.

[1] The details of "Avian Coccidiosis" have been taken from the Report of the Committee of Inquiry on Grouse Disease.

Disease	Symptoms
Enteritis.	Infectious enteric (sometimes called Chicken Cholera) is the most dread scourge known on the rearing-field, and must be considered as among the most easily communicated of diseases. The symptoms—suddeness of attack, rapid spread from diseased to healthy birds, scour among affected birds, and high mortality—are outwardly much like those of Coccidiosis, from which it differs markedly in the fact that birds of a month old and upwards seem most liable to infection.
Froth.	Rapid death from congestion and suffocation; symptoms very similar to sunstroke (see Cramp (1)).
Gapes.	Gaping of mouth, wheezing and coughing to try and dislodge worms in throat; if persistent, eventual inflammation closes throat, and bird is suffocated or dies of exhaustion.
Liver Disease.	General appearance of ill-health.
Roup.	Watery discharge of offensive odour from mouth and nostrils; in extreme cases cheesy patches form round all orifices of head, in which case death soon results.

Cause	Cure
Similar to Coccidiosis; almost any agency may carry infection; most prevalent in wet weather or damp situations.	Prevention by precaution; similar measures to limit spread of disease as given under Coccidiosis.
From swallowing larva of cuckoo-spit, which is most dangerous when least visible.	None, except to remove coops from affected ground.
A common contagious trouble, most prevalent in wet weather; due to presence of Red or Forked worm in the wind-pipe, the eggs of which are probably swallowed with water.	Careful fumigation of affected chicks; immediate isolation of infected birds; removal of coops to fresh ground.
Absence of grit or unsuitable diet.	Grit, green food, and more carefully studied diet.
Infection; neglect of drainage, or attention to birds with cold or catarrh.	Burn all badly affected birds; treat all others with weak solution of boracic acid ($\frac{1}{10}$); remove coops to fresh ground.

Scaly Leg	Scaly crusts on fore part of legs.
Scrofula (Tuberculosis of Liver).	Gradual emaciation.
Worms.	No marked symptoms.

In addition to the above formidable-looking list of diseases, pheasants occasionally suffer from a deadly form of ophthalmia, an equally deadly epidemic pneumonia, myiosis attributed to the flesh-fly, and other troubles whose nature has yet to be satisfactorily determined; in fact, expert and exhaustive inquiry into the whole subject of the ailments of the rearing-field would be most desirable, our present knowledge being very limited.

The fact, however, remains that the keeper who takes no chances loses a surprisingly small percentage of his young birds; only occasionally are his methods of precaution overcome by unpreventable catastrophe. Pheasants are sometimes poisoned by eating yew,

Usually communicated by affected hens.	Wash affected parts with paraffin.
Infectious; induced by weak parent stock and interbreeding.	Careful selection of hens and of breeding stock.
Various tape-worms affect young pheasants, probably gaining access through the agency of insects.	Burn affected birds; allow no refuse, likely to attract flies, to lie about.[1]

ivy, and lead pellets picked up after the shooting.

The cost of rearing pheasants is largely influenced by the many varying conditions of each particular case. Taking everything into account, including rent, rearing, feeding, wages, incidental expenses, depreciation of plant, and interest on capital expenditure, a pheasant is probably a cheap bird if he has cost about seven shillings by the time he is shot.

The importance of keeping the stock healthy and the ground clean and sweet, is easily appreciated by glancing through the long list of pheasant diseases; and here we must take into account the claims

[1] In compiling above list, the writer must admit his indebtedness to Mr. William Carnegie's *Practical Game-Preserving* for information about some of the less common complaints of young pheasants.

of a rival game bird, for on most of our country estates in England, wherever soil and surroundings, climate and cultivation, favour the production of game, the November covert shoot follows the partridge driving of October in the established order of events.

Each game-bird has its province assigned to it, to the pheasant the park and policies, to the partridge the arable land outside. Unfortunately no bird is more intolerant of restriction than the wandering pheasant, and this allocation of territory commonly results in half the estate becoming a debateable land, where the pheasant strives often only too successfully to oust the partridge from house and home.

In the hand rearing of pheasants lies at once the evil and its remedy: the evil, for during half the year the coverts are turned into a kind of congested area of the game world, the consequences of which no degree of liberality in feeding will serve wholly to avert; the remedy,

for only the ease with which pheasants can be artificially produced in any given quantity, enables us to determine exactly how many birds there shall be on the ground in spring, without prejudice to the autumn shooting.

I am perfectly convinced in my own mind that on many, many estates, of no vast acreage but of a soil naturally congenial to game, where now partridges and pheasants are expected to live the year through cheek by jowl, in the unnatural numbers that modern sport demands—unnatural in no invidious sense, but simply meaning beyond the common course of nature—by far the best policy would be to clean out the pheasants every year. To many this will seem rather a desperate expedient to suggest, yet much can be said in its favour, and the bold policy often justifies its adoption against the half measures in which we are all so prone to effect some compromise between the logical conclusion of a matter and our own personal feelings and prejudices.

Now there can be no doubt that the evil really exists, and is rapidly on the increase. The higher preservation of game is, after all, but an affair of yesterday in this country, and its effects are only now becoming apparent.

The simple rule seems to be this: to a certain extent you can regulate the balance of nature to serve your own ends. But the limit of impunity is soon reached; and if you intend thoroughly to upset that nice adjustment of incalculable experience, you must foresee the results and make good your disturbance, or await an exposition of the inexorable laws of supply and demand. In this case the trouble lies in the fact that no ground will carry more than a fixed head of winged game, be they pheasants or partridges, without deterioration.

Insect life—so essential to the welfare of all young game-birds, supplying the proteid without which they cannot thrive—although fertile beyond belief, can eventually be brought very low by long

continued supertax on its resources. In the first chapter there was given the detailed analysis of the contents of a single pheasant's crop, which contained the remains of 2800 insects—the result of a single meal. It may of course be said that this instance of a wild bird fending for himself is not a fair one in this contest, but it serves to show the natural foraging capacity of the pheasant, which all the maize in the world will never eradicate.

In many of our eastern and southern counties—which under natural conditions produce such abundance of game as seems scarcely credible to those whose lot is cast in less favoured districts—production of pheasants and preservation of partridges have of late years combined very sensibly to increase the head per acre that the land is expected to carry, until signs are not wanting that the burden is too great to be consistent with the continuance of a healthy stock. The noticeable feature—and surely it is the broadest

hint that nature could give—is a steady reduction in the volume of insect life, and often a complete dearth of those very forms of life, the abundance of which go so far to make a heavy head of game possible. Soon will the sluggard have to look elsewhere for an incentive to industry, for the busy ant is being swept away before a host of hungry persecutors; already the old need not fear the burden of the grasshopper, for his voice is no longer heard in the land.[1]

Thanks to the prodigious fertility of the insect, all that such ground requires is an occasional rest for recuperation, and this rest cure is exactly what the adoption of what we may term the root and branch policy with the pheasants ensures.

The proposition is that, wherever a heavy stock both of partridges and pheasants is desired, and any suspicions of

[1] The sentence touched the ear, and was allowed to stand. Yet in truth, an analogy is barely tolerable, for the grasshopper of Ecclesiastes must have been the cicada, whose voice is only too familiar to dwellers in the East, and on whom the sturdier race of grasshoppers with which we are more familiar, prey with ferocity.

undue competition between them are entertained, all the pheasants should be shot in the shooting season, and the reliable eggs that any of the approved game-farms supply, be solely relied on for the following year.

For the partridges the adoption of such a policy can only result in a marked improvement in their conditions, for a formidable competitor in the struggle for existence is removed during those very months when the shortage of food supply makes the problem of ways and means most acute; the keepers have more time on their hands to care for their welfare, and later on, in the nesting season, they may possess their hedgerows in peace, without fear of the obtrusive pheasant.

In the coverts the ground profits by the half year's rest, and is clean and sweet by the time the new tenants are ready to enter on their occupancy.

The sole deterrent would seem to be the cost; to which it may at once be replied that to produce more game than

the ground is able to support under natural conditions must in any event be a costly business, and that the results would surely warrant any increase in expenditure, for partridge driving is by far the most popular sport with the gun in the low country, and few would be content to see their pheasants thrive at the expense of the partridges.

The writer would be slow to believe that this method has not been adopted on individual estates where sound principles govern the general management: but these must be rare exceptions, for although he has often discussed it in theory with keepers and their masters, he has never had the fortune to meet with it in practice.

Even where the demands of the shooting are not so heavy, and the number of pheasants in the coverts conform more nearly to the capacity of the ground, great care should still be exercised to keep them within bounds. The worst offenders are the pheasant hens whose first lot of eggs

have been lifted, for they have a tendency to wander further afield before nesting again; also their second nest being later, is near in time to the first effort of the partridge, a coincidence of little advantage to the smaller bird.

The number of pheasants allowed to nest outside the coverts should always be carefully considered, and whatever limit is fixed strictly enforced. A friend in Norfolk, with a rare knowledge of game birds in their relations to sport, has told me that on his 5000 acres of shooting, with 200 acres of woodland and all the remainder arable, he considered about 1000 partridges the desirable stock; and that he would never allow more than 200 pheasants to nest outside the coverts. From these figures may be taken the rough proportion which cannot be exceeded on the most favourable soil without undue interference with the stock of partridges.

When compiling a series of notes on partridges for the companion to this

present volume, among other points on which the writer sought information from the practical experience of others, was the general question of pheasants on partridge ground. It may not be without interest to indicate briefly the nature of the answers.

Out of fourteen opinions it will be noted that only four are at all in favour of the pheasant.

Pheasants are not found harmful on partridge ground. (Mr. Bell, head-keeper to Sir William Gordon-Cumming, Bart., Gordonstoun, Elgin.)

Partridges always do better where there is no big quantity of pheasants. (Lord Elphinstone, Preston Hall, near Edinburgh.)

Pheasants I consider harmful on partridge ground, and should be kept within limits. We rear no pheasants here now. (Colonel A. Trotter, Charterhall, Berwickshire.)

Pheasants not desirable on partridge ground. (Estate Office, Welbeck Abbey, Notts.)

We only find pheasants a nuisance when they lay in partridge nests. (Hon. Gerald Legge, Patshull, Wolverhampton, also Sir George Houstoun Boswall, Bart., of Blackadder, Berwickshire.)

The ideal partridge ground would be denuded of pheasants. (G. W. Taylor, Esq., Pickenham, Norfolk, also W. Barry, Esq., Witchingham, Norfolk.)

Too many pheasants, of course, affect the partridges. (C. Cockburn, Esq., Weeting Hall, Norfolk.)

Pheasants ought to be kept to a very limited number on a good partridge shoot. (G. Tosetti, Esq., Swaffham Prior, Cambridge.)

I do not believe in keeping a lot of pheasants on partridge ground; partridges will migrate if their ground is overstocked. (Mr. R. Hersey, head-keeper to the Earl of Ellesmere, Stetchworth, Cambridge.)

Pheasants are mischievous if too plentiful on partridge ground. (Mr. Ross, head-keeper to the Viscount Hampden, The Hoo, Hertfordshire.)

Pheasants lay in the partridges' nests, but if well looked after in the nesting season, are found to cause little harm. (Mr. J. Reader, head-keeper to Capt. E. Pretyman, Orwell Park, Ipswich.)

It is undoubtedly bad for partridges to have too many pheasants on the ground. (The Earl of Northbrook, Stratton, Hampshire.)

There is then good reason for concluding that in certain congested areas of

the game world it would be well for all concerned to make an annual clearance of the pheasants, and that in almost every case where partridges are a feature of the shooting, it were no bad thing to limit the number of hens laying at large, and rely mainly on penned birds for the supply of eggs.

At the same time it must be remembered that some authorities are strongly in favour of rearing pheasants only from eggs laid under natural conditions. Thus in a recently published book on pheasants, already referred to in a previous chapter—a work almost wholly devoted to the problems of the rearing-field from a practical point of view—we may find this view strongly expressed :—[1]

> Eggs derived from wild birds and then hatched by hens and subsequently reared under artificial conditions are, most certainly in the writer's opinion, superior to those produced in the pens from penned birds. If plenty of hen Pheasants are left in the coverts, which there ought to be in

[1] *Pheasants in Covert and Aviary*, by F. T. Barton, 1912, pp. 116-125.

every well-regulated game preserve, eggs will be produced under natural conditions, and when the keeper can obtain a supply of eggs from such a source, he ought with good management to have vastly superior birds to the man who rears exclusively from aviary produced eggs.

This seems sound in theory, but like many other attractive theories cannot bear the cold light of hard fact. The majority of experienced pheasant rearers have found that the eggs from pen, aviary or approved game-farm can be implicitly relied on to produce birds, if not 'vastly superior,' then at least good enough for all the practical purposes of sport, and nothing would induce them to abandon their proved methods, in favour of a system, necessarily involving far more time and trouble to carry out, and in no small degree affecting the clock-work regularity of procedure which gives to pheasant rearing an attraction denied to almost every other form of game preservation—the fair certainty of success to him who has deserved it.

CHAPTER IX

COVERT-SHOOTING

"It has long been one of my fancies that this country is an epitome of the natural world, and that if any one has come really into contact with its productions, and is familiar with them, and what they mean and represent, that he has a knowledge of all that exists on the earth."

THERE spoke one who never knew what it was to feel bored; in the simple surroundings of an English countryside he found matter of absorbing interest, in the little things we think beneath our notice, the key to the whole realm of nature. Here's what should take a boy's fancy, and make him a happier man for the rest of his days. Let him take his gun and go a-field with Richard Jefferies, and learn to see things as they are. In August, when they seek the duck on pond and stream, he shall see in the tangled

growth of weeds the vast papyrus-grown swamps and lakes of explorers' tales; the jungles of India, the swamps of Central Africa, the backwoods of America will all be his if he look a-right at the reeds, fern and various growths through which he may push his way out shooting. A swim in the pond shall show him in miniature the hot and cold currents of the ocean, and the deposit of a tiny streamlet the delta of Ganges or Amazon.

In winter the whole Arctic regions are his to explore; as he seeks snipe in the frozen ditches he will find the workings of a glacier, and when out after duck on the frozen water meadows, the ice mist and all the phenomena of the frozen north, are there for him to observe. Only the teacher is needed, to give the right bent to the plastic mind of youth; only the teacher is so often found wanting, unable to appreciate or impart the secrets of nature.

Read the works of such a man as Richard Jefferies then, you fathers who

hope that your sons will spend every day they can snatch from business or work in the open country; read patiently and perhaps painfully; only succeed in teaching the boy to take delight in the ways of nature, and your labour will not have been in vain.

Perhaps all this is hardly in line with modern ideas; it probably seems to many prosy and dull, besides having little to do with covert-shooting. But still, covert-shooting in some of its aspects becomes so nearly part and parcel of that desire to be amused at all costs which manifests itself in so many ways, that the writer cannot refrain from making his humble protest against a common enough contempt of simple things.

All are not cast in the same mould, but every boy should at least be given fair chance of making friends with nature, of learning to be happy without wishing to be eternally amused. The adaptable age lasts only for a short time, we soon forget the character in which the open

book of nature is written; and this is a pity, for the pages are good reading, nor has any man ever read to the end.

It is no bad thing for some of us, who pride ourselves perhaps overmuch on the place of the English race in the world of sport, to remember that even as sportsmen—in the better sense of that much abused word—we are not altogether above criticism. For instance the Englishman's insatiate desire for slaughter has somehow become quite a byword among Austrian sportsmen, and *öder Schiesser nach englischem Muster* is their rendering of what we should call a glutton in the shooting field; nor is it easy to say that this taunt is altogether unmerited.

Again, to quote from a recent article, written, not by a journalist in search of good copy for the halfpenny press, but by a leading sportsman in a magazine of standing for the benefit of members of his own class; his subject, the shooting at a certain famous country home:—

Here there is no Spartan ordeal of slicing cold

viands and making packets of what will be lukewarm sandwiches for lunch, and none of the discomfort of a damp hedgeside for one's banqueting hall. All is thoroughly luxurious, and if you are lucky a certain famous hash of mushrooms and cream may be your fortune at lunch, or some of the fragrant white truffles which an old man and his dogs are retained specially to gather in the beech woods which surround the park.

Consider this, and remember that it is but a few years since the king of Italy invited a hungry-looking shepherd boy to share his shooting lunch. The boy told his friends that he had met what he took for "un signore," but that he proved only to be "a poor devil like myself," for the royal lunch was after all only black bread and a large raw onion.

An overdrawn comparison, no doubt; but that it should be possible is enough to give some point to these notes of criticism.

Some concern for what we eat is no crime, nor is there any harm in good covert-shooting; only we want more real sportsmen among us, who while they enjoy a heavy rise of pheasants as much

as any one, and make no demur about eating a good lunch when it is there, still rightly look on these things as luxuries, and not as among the necessities of existence.

In short, any right-thinking lover of shooting, blest with good health and not over-burdened with years, should be able to enjoy starting out in the morning with his gun, his lunch in his pocket, and a fair chance of filling the keeper's game-bag in the day. And the wide departure in practice from this sound enough theory must be set down in no small degree to over-indulgence in the easy ways of covert-shooting. To spend weeks on end shooting masses of high pheasants seems, at least to the writer, like treating your stomach to an exclusive diet of *pâté-de-foie gras*; both are excellent things—in moderation. With a touch of Balaam's feelings after dispensing unpalatable truths, the writer gladly leaves any further thought about the ethics of covert-shooting, to pass on to matters more practical and less controvertible.

Now while the craze for high pheasants has been carried to excess by some enthusiasts—a tendency there will be occasion to comment on when touching on guns and shooting—there are at the same time a number of people who can rear pheasants successfully enough, but seem quite at a loss to make any good use of them afterwards. The low pheasant, which can be shot without effort, should never be allowed to appear at all on official occasions. Its unhappy continuance arises solely from a total disregard of the rules of the game, so easily mastered that it is hard to understand how any one can ignore them in practice.

There is no reason for a low pheasant ever being shot again—even in the flattest country—when the one cardinal rule is strictly observed. It may be worded as follows :—

The pheasant is a bird of the ground, and only flies under compulsion ; he may be pushed on foot almost any distance in any direction if carefully handled, but he will never, NEVER make a good

bird for the gun, until he is flying towards his home.

On this short and simple maxim every good rise of pheasants in the country is based.

Drive out your pheasants from their native wood into other woods, into spinneys, copses, rough-grown common, heather, turnip-fields, into any form of cover, natural or artificial, that can be found to hold them, and should the country be as flat as a pancake, they will still make good birds for the guns when homewards bound. A host of other details, of course, go to the making of a good rise, but they are all subordinate to the one essential that we have all seen neglected so often. Perhaps the next point in importance is, having got your pheasants where you want them, to flush them far enough away from the guns to give them a chance of flying well.

The one objection which may be urged —apart from the fact of the woods having been shot in the wrong way for the last

twenty years, which carries no weight—is that all this involves less birds being brought to the guns. Quite so, high pheasants can only be obtained at the expense of the total, but any sacrifice in this respect is made good many times over by having shooting that is a pleasure.

Covert-shooting under modern conditions can, after all, only be in many ways but a makeshift of sport, an adaptation of the real thing to the narrow confines of a crowded civilization. Rightly regarded as an effort of human ingenuity and not an affair largely in the hands of nature, it becomes obvious that nothing can safely be left to chance. The piece must be staged properly, the inevitable element of artificiality carefully concealed, the imitation made as life-like as possible, or the result will be a sorry business, a travesty of sport, a subject for shame, and an object of ridicule.

No taint of the coop or the rearing-field clings to the pheasant as he swings over the guns, ninety feet up in the air,

and going forty miles an hour, and most guns will cheerfully endure a goodly succession of that variety of hand-reared fowl, without wanting anything better than a steady continuance of the same.

Pheasants at a well-conducted shoot look anything but tame whenever the guns are asked to have personal dealings with them, and such nicety of judgment in aim and allowance is required to make a success of the meeting, that the truest lover of the wild may well forget all else in the marksman's joy of pitting the qualities of his art against so worthy an antagonist.

But neglect the stage management of the piece, flush the same birds within a few yards of the gun, and send them flustering in clouds round his head; then there is no pleasure in the performance, the shooting becomes sheer butchery, and the gun is only conscious of an undesired necessity for action, enforced on him by his position as guest, and usually attended —except in the case of the very young,

to whom every chance of letting off the gun is a mighty joy—by varying degrees of nausea, according to the susceptibilities of the individual.

There are, doubtless, those who take delight in plastering low pheasants, for the simple reason that a better one is too good for them; it may be right that they should wallow in blood and feathers to their heart's content; only let it be done in private; in public it is a nasty business, and brings fair shooting into disrepute.

Some stress has been laid on this aspect of covert-shooting, because badly managed shoots are far commoner than might be supposed, considering how many places there are scattered about the land where the whole business is carried through in workmanlike fashion. Ignorance can alone be held responsible, for when the host does not happen to know the rules of the game, he is likely to remain unconscious of any shortcomings in his shooting. The candid friend who will give an

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honest opinion at the end of the day is passing rare; the suggestion as to how the shoot might have been managed must generally be so tactfully conveyed if no offence is to be given, that most guests deem it wiser to leave it alone, thanking their host for his shooting in vague generalities, and reserving their stringent criticism of his methods for an outside audience.

As to the right ordering of a covert-shoot, the writer had in memory certain pleasant days of high pheasants skilfully shown, and intricate manœuvres carried through with the precision of a military evolution at Bargany in South Ayrshire. To his inquiries as to ways and means, Mr. North Dalrymple Hamilton kindly wrote at length, and the following notes may serve to preserve the gist of these letters, which, based on practical experience, have a real value to all who rear pheasants and are not intimately acquainted with the science of bringing them over the guns to the best advantage.

Not all may have the inclination or the capability to make of their covert-shoots the finished performance therein described, but the underlying principles can at least be followed with little trouble and the happiest results.

NOTES ON COVERT SHOOTING AT BARGANY

The following are only a rambling disjointed set of notes on our pheasants here, and do not pretend to be a general treatise on pheasant shooting.

Rearing.—Any details as to the rearing of our birds would be superfluous, as any one who is interested in the subject can learn nothing from us on the matter. We have no regular pheasantry here, as we never rear on a large enough scale to require one. Some hens are caught up and penned every autumn, also a few cocks which are exchanged with other places. Personally I think it would probably be better to have no cocks penned at all, letting loose even the strangers acquired by exchange, and trusting to the wild cocks visiting the hens, a plan not uncommonly adopted in other places, and with satisfactory results.

For my own part I dislike the white-neck ringed bird, and try to keep to the black necks so far as can be managed.

Coverts.—The woods here lie along the valley of the Girvan, and consist of the usual admixture of hardwoods, larch and Scots fir of varying ages. The acreage of wood is large, but the coverts are individually of a convenient size for shooting, except three large woods in which we never put any birds. If we had enough birds to turn down in one of these woods, the shooting of it would make an interesting day, for the whole wood could be run into a fair-sized wood lying beyond the N.W. end, whence the birds should come back well.

The Shooting in General.—We never rear a big head of pheasants here, and so we endeavour to make up for lack of quantity by quality, on the principle that a few good birds are worth a host of bad ones. My own opinion is that it is not a difficult matter to make pheasants fly decently high anywhere, even in the flattest country, if only the fundamental principles on which every successful rise is based be recognised, and a little common sense employed in their application.

Every rise should be fixed by previous experience; the birds run out from their own ground to the "stop," and then intercepted on their homeward flight by the guns. I have had the pleasure of shooting real tall pheasants on the flattest of ground; how much more then, if one is lucky enough to have coverts in a hilly country, should the birds be made to fly not only respectably but really high.

The coverts here lying on hilly ground, birds can be shown to good advantage, and it is easy to follow the right system, as first practised at Holkham by the late Lord Leicester—viz. running the birds away from their home and then driving them back over the guns. This naturally entails a lot of working up to each rise, and a great curtailment of actual rises—I have done away with ten to have four in their place—but in the end the trouble is not wasted, as when the rise does come, the birds are all real good ones, instead of two or three rises of indifferent birds on the same ground.

In this respect I may add that I firmly believe in making the guns well acquainted with the scheme of operations, as from my own experience I know how ignorance of what is going on leads to a general loss of interest in the proceedings.

A long slow walk with the beaters with nothing much to shoot at on a cold day is apt to be very wearisome, unless you know that you are bearing your part in a grand manœuvre in which you can tell how far things are going right.

Details.—Before the shoot I arrange all minor details, such as hours for starting, lunch, meeting-place, stops, pegs, etc.; and give written orders for cartridges and loaders. The head-keeper manages the beaters and takes charge of the general arrangements, game cart, etc., while each beat-keeper is responsible for his own ground.

Stops.—Here we use men on the estate who

have been here for years to act as stops, under the senior woodman, who knows his job to a T. I put pegs in for his guidance at some of the principal rises, where the accurate placing of the stops is of vital importance, since they have practically to act as flankers. Once a rise was ruined here by the stop sheltering from a north-easter too close to the covert. Of course climatic conditions have to be considered on the day of the shoot, but as at one rise here I have practically to run to my place, I cannot casually inspect the stop-flankers on the far side of the glen.

No mechanical contrivances are used here; they may be useful in big woods, but I distrust them, because they must be started and stopped by somebody, and we could never allow our stops, who are posted on high ground outside the wood, to go running into the stopping points for this purpose. A word on the subject of wire:—at certain rises we use wire to prevent birds running on too far; but we always try and avoid it, relying simply on thickening the undercover (which is very bad here) by means of quantities of bushing.

Beaters.—We have no trouble in getting men, and good keen ones at that. We divide them into three parties, right, left, and centre, each under an under-keeper, with the head-keeper free to go wherever he can best supervise the whole movement. All keepers' dogs in the beating line have to be on leads.

The beaters are told that on no account must

they shout unless ordered to do so, nor utter any wild cries of 'mark.' They are always very good about this unless a roe appears, when they all go mad—including the head-keeper—and yell, "The Deer! The Deer!" Latterly I have persuaded them to desist from this to some extent, and they no longer break ranks and chase it. The orders about roe are to let him come back and through the line; nine times out of ten he comes charging back, though I have seen a rise spoilt by one. We always try to hunt the roe out before a shoot.

Silence in the beating line is what we want; that is why all dogs are on leads; for there is nothing more prejudicial to the success of a delicate manœuvre than yells of 'Jock,' followed by long blasts on a pea-whistle and subsequent howlings. Honestly, I consider the quietness of the men one of the principal factors in the success of a manœuvre here; it also adds to the general pleasure of the day. I *loathe* hearing men yelling, dogs howling, and general chaos; it can only mean a badly managed shoot.

The Rise.—The actual flushing of the birds is done by one man, the beaters holding hard in a line behind him. This way certainly answers best here, and reduces the risk of a big burst or bunch of birds. For picking up we always try to have a man to every two guns standing by them at the rise, and another man out behind; after any rise where birds fall in a thick place, we line the beaters out and walk through picking up.

One small point—after every rise the head-keeper comes direct to me; this saves endless worry; if you don't insist on it, you probably want to alter something on the spur of the moment for the next manœuvre, try and find the head-keeper, and eventually discern him half a mile away looking for a running cock pheasant with Captain Snooks. That is *not* his business; he should come for final instructions, and if there is nothing to be changed or done, should go where the game is being collected, count it, see to its proper disposal, marshal his men and be off.

I must say that some of our new rises are going to turn my hair grey, as the birds have to be run a very long way, and over some queer country. In one case they have to cross a coal pit, a railway line, and a public road, but still we think we shall get them where we want them. If so, they should make real screamers, what I have heard described as pheasants of the highest killable quality, for they will be in something very like the ideal place for the purpose, a narrow valley with woods on either side—the guns standing down below, and the pheasants crossing from height to height, making their shortest way home.

People with this lie of ground for their coverts need never worry themselves over the elimination of low pheasants. They have only to bush up the rising point, run a wire round it if necessary, and *ipso facto* the birds will come high. No

fear then of pheasants dropping in their flight, which is often such a bugbear to me here.

Two Typical Rises.—We have one magnificent-looking rise here; the birds have been run nearly a mile from their home in the valley, and been pushed up a strip, across a public road, and into a wood beyond, some 300 feet above their home. The guns are 100 feet below the flushing point, and the trees are 40 feet high. Everything looks propitious—surely screamers must ensue. But no, instead of screamers a series of good birds come out of the wood, set their wings, and glide over our heads towards their home—difficult to stop if you like—amusing, annoying to shoot, but downright heartbreaking to me.

The trouble is obvious; the birds, with their home well below them, hug and conform to the slope of the ground, only troubling to fly high enough to clear the belt of trees immediately behind the guns, as this rudimentary sketch may explain.

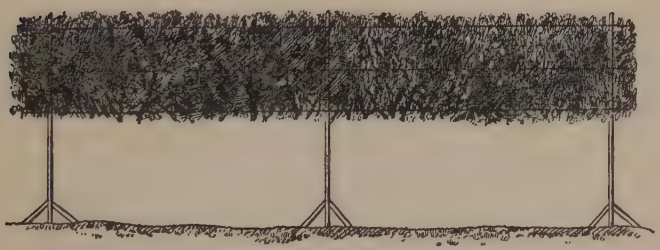
This rise has worried me for five years, and I have tried various remedies to stop this drooping tendency.

First I thought that perhaps the birds did not see the guns, as they were standing against a dark background of trees; so I made large white screens 6 feet square and set them up behind the guns, but it made no difference. Then I erected dummy figures, garbed in violent colours, in front of the guns, with the hope that the birds would see them and cease to drop—again no result.

Next I tried a row of 'lifters' in front of the guns—futile again.

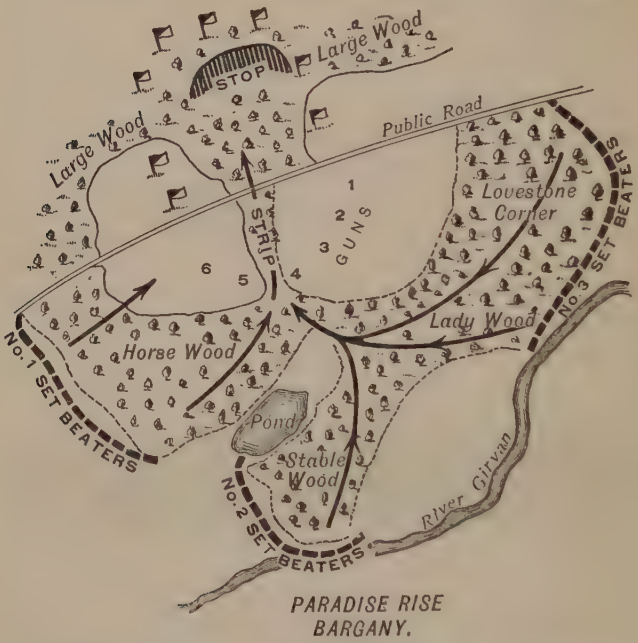
Finally I have had a dozen 40-feet poles put up between the guns and the wood. They are

joined up by three strands of wire, the whole top being covered with fir branches, to try and represent a row of trees. I am glad to say that this has answered the purpose. The only trouble has



been to know whether it is safe to put the wires up before the birds have been run into the stop, trusting them to run under the lowest strand of wire, which is 25 feet above the ground. So far we have not dared to ask them to face this extraordinary erection on their way up to the stop, for

fear that they might take alarm and turn back over our heads. The poles are easily taken down or put up. The device is certainly crude and artificial, yet it was amusing to see the cunning



old cock suddenly pedal his way up into the heavens to avoid it by a good margin.

Paradise Rise.—From the diagram it will be seen that the idea is to collect all the birds from the four lower woods, and run them up across the fields and up the narrow strip to the stop above

the public road. The ground rises from the river Girvan to a height of 400 feet at the stop, a gradient of about 350 feet in 1000 yards.

The starting-point of the three parties of beaters is shown on the plan. They join forces as they advance, until by the time the birds have been collected and run forward to the beginning of the strip, they are all in one line, with the outer flanks well forward, reaching across the road. The centre and left of the line then advance very slowly with plenty of tapping, the right holding hard. The guns stand back with instructions to shoot at everything coming back, thus helping to keep the birds forward.

Orders are given to make plenty of noise, once the birds are seen to be well on their way up the strip or across the field—a few always break back, but never more than about 20 (so far). The birds rise to cross the road, which is on a small embankment about 8 feet high, and fly straight up into the stop, which is a small blown-out area at the top of the wood, thick with rough grass and rushes. The stops beyond keep the birds from straying over the wood.

The stop is about 400 yards from the line of guns and about 200 feet above them. When flushed the birds rise straight out of the thick stop, not running down into the wood, and clearing the tall trees above the road, are at once in full view of the guns, over whom they make off for home at a great height.

I may add that the discovery of this rise was a fluke. We had a place bushed on the hill below the rushes, but the birds went straight over my bushing into the present stop. This was the making of the rise, as the pheasants are now very high, I think one could say with truth that the first fifty are out of shot altogether. The only disadvantage this—our best and highest rise—has, is that one cannot always make use of it in times of enforced economy, for it is a big undertaking getting the birds up there, and not worth while unless there are plenty of them.

These notes seem clearly to fulfil their purpose—the indication of general principles as applied in practice, and there seems little advantage in going any more closely into the details of the keeper's part of the work. All these have to be settled on the ground, and no keeper is likely to seek the advice of a book as to how he should place his stops or use his flags.

Undercover for flushing spots is often a difficulty, and where the natural growth is thin, the ground may have to be heavily 'bushed' before it will serve its purpose. Natural undercover is always

the best, and may be assisted by some artifice such as the sugar mats set up on hurdles, that Captain A. Glen-Kidston uses so successfully in his Welsh coverts, and about which he was kind enough to supply the writer with the following notes :—

GWERNYFED ; THREE COCKS,
Nov. 30, 1912.

You ask me to let you know about the sugar-mats. I first saw them used at Sir Walter Smythe's place in Shropshire, where Mr. M'Corquodale has the shooting, and in my opinion they are excellent, especially when used on a bank or ridge. If the cover is hollow in the bottom, the pheasants run along them and do not see the guns. They break the wind and keep the covers warm. Every here and there I stick privet or rhododendron bushes at the lee side of the hurdles, which keeps the birds from bunching ; they also have the advantage of necessitating the birds rising four or five feet before clearing the hurdles, and when once this height in the air, they make out for the top of the trees and come right over the guns.

I have found them most effective, even on the bare open face, by putting them in echelon along that face, and allowing the grass to grow up among them.

They give a wonderful lot of shelter from the wind.

The price, I think, is about 3d. each, and they are very hard to get.

Wind must at times play a leading part on all shooting days where driving is the rule, and although with pheasants it cannot often take entire charge of the proceedings as it will among grouse or partridges in the open country, still its effects are very difficult to guard against on covert-shooting days, for an alternative rise is not always easy to provide for.

The best equipped coverts in this respect that the writer has ever seen had been laid out regardless of expense. The main wood ran along a wide valley, while at all four points of the compass flushing coverts occupied commanding knolls at a convenient distance. No matter then from what quarter the wind blew, for there was always the rise directly down wind. Here the birds fly nearly half a mile before passing over the guns, and

are encouraged to keep well up by three rows of 'lifters,' or men with flags. Few, however, can afford such costly precautions; only some thought must be given to the influence of an adverse wind on the march of events. At the same time, it is surprising to see what a strong wind pheasants will beat up against, when their faces are set homewards, and how easily they are missed under those conditions.

The curious fact may be noted here that almost every one who shoots would rather have pheasants high, even though they are quite straightforward and fairly easy, than the few varieties of difficult, low pheasants such as those skimming down a hillside or facing half a gale of wind.

From wind to weather is a natural transition. Wet and rain play the mischief with covert-shooting; it is hard to give up shooting when all the many preparations are complete, and the guns and beaters ready to start. But whenever there is any question of whether the day

is fit for the work, the right answer is generally 'no,' for there is little pleasure in shooting draggled birds. Covert-shooting is essentially a fine weather sport.

In less sophisticated days the guests to be met at shooting parties had ways that were often weird and wonderful, and writers on sport of twenty and thirty years ago were constantly impressing on their readers the importance of waiting until a pheasant has passed the line of their neighbour's head before discharging the piece, of carrying the gun in some approved manner, of keeping the place allotted by the host, and so forth. Such matters have become axiomatic, only in one point is a tendency to more careless ways still noticeable—the provision of loaders. Many guns have always their trained loaders with them, but, one way or another, there is generally one casual loader to be provided at a shooting party, and it is quite astonishing to find how often no trouble has been taken to dis-

cover his capabilities beforehand. No loader at all is infinitely preferable to one who has no knowledge of the work, as any one would agree after a single trial of the bungler and his ways.

At a certain covert-shoot a few winters ago, I went through an unhappy experience of this nature. An unexpected day's shooting, a host with a reputation as a man of method in all things, and a pressing request to use two guns. Next morning, on gaining our ground, came the casual remark as we took our places, "Oh, I say, you'll put your loader into the right way of things, won't you? He's the kennel boy and I don't think he's ever loaded before." A brief interval of fruitless instruction; five sad minutes spent in wondering whether the said boy would pepper the portly gentleman on our right, or blow a large hole through the back of his temporary employer; then the awe-inspiring moment when, stooping to to pick up a cartridge that had slipped through his unaccustomed fingers, the

wretched boy rested the cold muzzle of the loaded gun on the nape of my neck. This made any further hesitation impossible, the cartridges were gently but firmly removed, and peace reigned once more in the land.

At least at a covert-shoot, with a gallery of ladies and the human form abounding in every direction, it is not too much to expect that every man, be he gun or loader, who is allowed to carry a loaded gun about, should be guaranteed safe to life and limb.

The reason that some, who never tire of other forms of shooting, often find covert-shooting irksome is easy to understand. It lies not a little in the assured result; the birds must be there or some one is much to blame; the element of chance has been practically eliminated, only wind and weather can interfere much with a foregone conclusion, and then there is little consolation in the failure that may result. Nor indeed would chance be a desirable feature in a

business so entirely—as we have done our best to make evident in these notes—dependent on method in every detail to make it a success.

The whole tendency of recent years has been to counteract the practical certainty of a given number of pheasants coming to the guns by making them so difficult to kill that they cease to be monotonous. Lately, this has sometimes been carried too far, and in hilly country guns are now not uncommonly asked to shoot at pheasants quite beyond the killing range of the gun. Shooting may then still seem good fun to the thoughtless, but it is not a nice business; no one wishes to have their pheasants made so easy that there is no skill in shooting them; nor should any one want to shoot at pheasants that he may quite probably wound, but can practically only kill by a fluke.

There is a happy medium at which birds call every quality of the marksman into play, and yet where the odds are on

every well-timed shot killing clean; and there is no sufficient excuse for ever exceeding this limit. As in many other forms of human activity, zeal for a good thing in itself, carried to excess, results only in wanton and unreasoning cruelty.

It is natural enough that hosts, in their wish to give their friends sporting shots, should sometimes forget to give fair treatment to their pheasants, but when five birds go away wounded to every one that falls to the shot, it is high time to think seriously about the cruelty involved. The danger of letting a right desire to see pheasants fly well develop into a craze for the 'highest possible' birds should be foreseen; in this respect keepers are sometimes more sensible than their masters.

The definition of the high pheasant has often been attempted, but never with any degree of certainty until last year (1912), when Sir Ralph Payne-Gallwey brought a long series of practical experiments to a successful conclusion.

The results of these tests were first recorded in the columns of the *Field*, and have lately been reproduced in book form.[1] The reasonable deductions to be drawn from the figures of these target-tests have a real interest to all those who ever try conclusions with the high pheasant, and may be briefly summarized here, for they are by no means at one with the commonly accepted notions on the subject.

It would seem that a pheasant 40 yards up in the air is out of range, so far as any certainty in result is concerned. Sir Ralph calculates that at this height only one in six correctly timed shots would bring the bird to the ground, whether by a fatal wound or only by chance pellet in the head stunning the pheasant, in which case death usually follows from the shock of the fall. The examination of twenty birds apparently killed clean by the shot at about this height, showed that they were struck by

[1] *High Pheasants in Theory and Practice*, by Sir Ralph Payne-Gallwey, Bart., 1913.

sixty-two pellets in all, of which only thirteen reached a vital spot; one bird received two fatal pellets, while eight were merely stunned and killed by the violence of their fall to the ground.

At 30 yards every bird should be killed when the gun is held straight, and about 5 yards higher, or little more than 100 feet from the ground is probably the extreme range at which it is fair to pit the gun against the pheasant.

Sir Ralph gives diagrams, obtained by careful measurement, to show that an object 40 yards overhead appears less than one-third the size of the same object 40 yards away but close to the ground, which partly accounts for the high pheasant being the difficult mark it is for the gun; other causes being the absence of all background with consequent uncertainty in allowing for pace and curl; the inevitable handicap of all overhead birds being covered by the gun at the moment of firing; the tendency to cant the barrels out of the straight

and lose the true line, and the fact that the stock resting on the unyielding shoulder-bone appreciably depresses the muzzle on the discharge, which only increased forward allowance—always difficult to ensure without losing direction—will counteract.

In theory, all high pheasants should be taken well out in front of the gun, better penetration being thus ensured, while an initial error with the first barrel may still be redeemed at the direct overhead mark presented to the second. In practice, many of us whose skill with the gun is somewhat limited, have perforce to wait for our pheasants until they are nearly straight overhead, the better penetration to be obtained in front being quite useless, through constitutional inability to put a high bird in front within the focus of the charge at all. This, of course, means that once missed the bird is lost, unless the second barrel follow remarkably close on the first.

Many of us have often wondered why

the high bird, missed directly overhead, should be so markedly insensible to any attempt to retrieve the position after it has passed the perpendicular. It is satisfactory to find that the tests prove this bird to be almost impossible, and better left severely alone.

Sir Ralph conducted these exhaustive experiments—for which he deserves the gratitude of all the pheasant-shooting world, so difficult to devise, so troublesome to conduct, must these tests on aerial targets have been—with every variety of the 12-bore gun and its cartridges, and arrived at these interesting conclusions.

In shooting at high birds, there is little advantage to be gained from any of the special expedients usually considered suitable by those who shoot. Thus the full-choked gun has no advantage over the modified-choke or indeed the cylinder gun, any increase of penetration being far outweighed by loss of regularity in the pattern. Any shot of a size larger than

No. 5 stands utterly condemned for the same reason, and the most regular results can only be obtained by using the normal modified-choke or cylinder gun with No. 6 or No. 7 shot, the best patterns being given, at anything up to 90 feet, by the cylinder and No. 7.

A chapter on covert-shooting may well conclude with a word of advice to those prospective tenants of shootings, who may not have the necessary technical knowledge to judge of the requirements which shall guide their choice among the bewildering number of shootings that figure on the agents' lists, their shortcomings lightly passed over, such merits as they may possess set forth in a manner carefully calculated to attract the attention. The following points should at least have been raised and satisfactorily settled, before any definite step be taken in entering on the tenancy of pheasant shooting :—

(*a*) Comparison of actual rent with gross expenditure, including running ex-

penses and outlay on upkeep; estimates of all extra expenditure such as taxes, wages, compensation to tenants for damage, rent of ground for rearing, etc., etc.

(*b*) The general lie of the country, and nature of soil; whether likely to be congenial to game, with some thought as to how this latter consideration would be affected by a wet season or protracted drought. The size, aspect and position of the coverts as regards holding the required number of pheasants (sheltered, sunny, and well-watered), keeping them at home (not too near boundary with cultivation or attractive-looking woods just the other side), and shooting them economically and efficiently (well-planned rises, worked by reasonable number of beaters).

(*c*) The relations between forester's and gamekeeper's departments, and which is to be subservient to the other.

(*d*) The ground available for rearing (a most important consideration, and one often forgotten).

(*e*) The fox and the rabbit, and their position on the place.

(*f*) The qualifications of the head-keeper for his place (characters are not worth the paper they are written on, unless they come from some one with a technical knowledge of shooting); the staff of keepers, whether adequate and up to their work; their relations with the farmers, etc.; and the question of whether systematic poaching is prevalent.

(*g*) The general attitude of the inhabitants towards game preservation and shooting tenants; the sufficiency of beaters and their cost; the nature of proprietors or tenants of neighbouring shootings.

(*h*) The opinion of the outgoing tenant.

There are naturally many other considerations to influence the choice of each individual, but most of the essentials —so far as pheasants are concerned—will be found in this short list.

CHAPTER X

THE DUCK

WILD-FOWL and covert-shooting seem to have little in common, and meeting our old friend the mallard in such novel surroundings, we can no longer allow him free use of his usual qualifying epithet—wild, for in this context it would be a contradiction in terms. That, at least, we must keep for the wary fowl we have hunted, stalked and lain in wait for by tide and river, marsh and loch.

It is only of recent years that the duck has come to play an important part in coop and covert, but now no survey of modern covert-shooting would be complete without some reference to the rearing and shooting of the duck.

Some of us may resent his presence

on days of formal sport, finding something distasteful in this tamer counterfeit of a true wild bird: we miss the right setting of our sport; the note of solitude and unwonted glimpses into the ways of the wild; familiar places, strange under the mystic touch of dawn and the darkening; extremes of wind and weather: and in our quarry, the swift upward swerve on the perception of danger, the difficulty of approach and all the uncertainty, disappointment, and hard-won success, that make the pursuit of wild-fowl so attractive.

All this, however, is but an affair of sentiment; the duck is easily and economically reared, and makes pretty shooting when dexterously handled; he has earned his place in the rearing-field.

The rearing of duck for the purposes of sport is not altogether a modern innovation; unsuspected historical associations attach to the practice. Nearly three hundred years old is the letter from Sir Thomas Manson of Burton to the

Earl of Rutland at Belvoir, in which the following passage occurs :—

April 3, 1631.

The time is almost past for furnishing you with a store of duck's eggs, but if I have notice by this bearer of how many more you want than he brings, I will do the best I can.

I shall hope another year to help you with so many duck's eggs, that you may breed fowl to maintain your sport, and with as many quick wild duck as will serve your hawks. I send you by the bearer 200 duck's eggs.

The Earl, however, did not live to receive any further consignments of eggs, dying in the spring of the following year.

It would serve no useful purpose to give here any detailed account of the rearing of ducks; the game food manufacturers publish pamphlets in which all that is needful may be found, and supply them gratis to any in search of information. The duck is certainly an easier bird to rear than the pheasant, far less subject to disease or dependent on the weather, and under good management

a thousand eggs should produce close on seven hundred ducks for shooting days. The breeding stock requires a certain area of water, to ensure health and the production of fertile eggs, and where this is not available, the eggs for rearing may have to be bought.

Although in a wild state ducks are strictly monogamous, they are less particular in captivity, and the ducks should always exceed the drakes in number, especially as there will probably be wild suitors for their favours. Each duck should lay about two dozen eggs, of which she may be trusted with the half, twelve being about as many as a sizeable hen can manage in comfort. It is a wise precaution to catch up the drakes while the ducks are sitting, as they are apt to be unduly pertinaceous in their attentions, and sometimes bully the duck off her nest.

Young ducks grow apace, and the chief difficulty is perhaps to keep them clean ; the chief handicaps to existence

which they have to face are hot sun, cold wind, and the rat. Rats are the worst enemies to eggs and young birds alike, and will always make mischief unless kept down with a firm hand. The duckling is otherwise a tough little fellow, with an inordinate capacity for stowing away food. At six weeks old, the young birds may be given their liberty on the water that is to be their home, after which they need no longer be given the run of their appetites, the quantity of food that must be given being determined by the natural feeding available.

After all the ingenuity that has been expended on the making of duck decoys, intricate in design, costly to construct and maintain, it is interesting to find that wild duck may be caught by far easier means. Hard by the fine duck decoy at Netherby, carefully planned with its seven pipes of approved pattern, there stands an unpretentious wire cage, which any one could knock together in an hour, using no more costly material than

Over the High Trees

a few bits of wood, a strip of wire netting, hammer and nails. One side of this simple pen lifts up, and a cylinder of wire netting, open at both ends, and wide enough to allow free passage to a duck, lies on the ground, leading from the open side to the centre of the pen. For ten days or so the ducks feed gloriously in the open pen, working all round and through the cylinder; then the open side is let down, covering all but the opening of this tube. With evening comes the flight of ducks; they have been used to passing through the innocent looking tube of wire netting with impunity, and soon the pen is full. When, however, they wish to depart, to look for an exit in the centre of the pen never seems to occur to them, and they wander disconsolately up and down the walls of their prison, until with morning comes Mr. Bell, duck-keeper at Netherby and originator of this ingenious device, to count his captives, cut the wings of those who are to be given their lives, and alas! to wring the

necks of the rest, whose ignominious end is a prelude to their appearance in the market.

This master of his trade, who probably knows more of the ways of our commoner ducks from a practical point of view than any other man living, has also very materially reduced his food bill—always a formidable item where ducks are concerned—by inducing his grown ducks to live largely on pulped turnips. As he put it to the writer of these notes:—

> Your duck is a gorgeous person, and only wants to fill himself with something; so we make him gorge himself with what we can get.

The ethics of shooting are always a difficult problem, nor is it easy to define the limits of fair sport with the gun. Thousands of duck are now often killed in a day set apart for the purpose, generally in the middle of a covert-shooting week to lend variety to the entertainment. Public opinion is silent, and each individual must make up his own mind

as to the degree of artificiality that he is prepared to countenance in a sport in many respects so essentially artificial as covert-shooting. The question is this, and the reader must supply the answer, for the writer's opinion is so prejudiced by a natural affection for all wild things, that it is worthless in such a case :—

Am I content to take the place I am given and shoot a nice succession of most sporting duck without any misgiving as to whence they came? Does it in no way spoil my pleasure to have a suspicion, amounting to a fair certainty, that somewhere out of sight over the horizon the keeper is turning these ducks out of pen or hamper not two minutes before they come over my head; that the nice distribution, each gun getting a fair share of the shooting and none more than he can deal with, is due, it is true, to careful handling of the birds, but hardly in the figurative sense commonly used about game? If the reader can cheerfully say 'yes' to these questions, he may have

some very pretty shooting—high birds, and plenty of them, no blanks, and no long, tiresome waits for the beaters.

For as a general rule reared ducks cannot be relied on, of their own free will, to play the part assigned to them on organized days of shooting; either they are too tame, in which case the whole affair becomes ridiculous, or else they are too wild, and take themselves off altogether on the first outburst of firing.

Only the reaches of some slow-flowing, reed-grown river, or a number of small ponds at convenient distances apart, can provide a regular day of duck-shooting under more or less natural conditions. The pen and the hamper do not usually obtrude their presence on the casual observer, who may think that the duck follow the keeper long distances afoot in hopes of food, to turn back disappointed in twos and threes over the line of guns, or that they arrive in answer to the regular call to feed; but it is at least doubtful

whether such expedients ever result in a heavy day's shooting. Where the reared duck is expected to provide steady shooting for five or six guns from morning till night, he must first be reduced—so far as any liberty of action is concerned—to the level of an animated clay pigeon.

CHAPTER XI

SOME MEMORIES

To any one who takes no pleasure in shooting, the pages of a game-book must seem parlous dull reading. The dry, uninforming columns of figures, bearing marked resemblance to the accountant's ledger, the brief notes chiefly dealing with such uninspiring topics as weather conditions, and the lists of guns who shared in the sport, soon weary the casual reader's eye. He shuts the book with a yawn, and some wonder how such tedious stuff should have been thought worth while recording.

Yet here we have the key to unlock the golden gates of memory; the impressions of all we ever did and saw in our lives are stored away in the brain,

but we lack the power to recall them at will; some clue is wanted to stimulate the mental vision, and then the picture from the past comes back to us clear-cut in all its outlines. Thus it is that as we wander through these dull-looking pages of figures, we may catch once more the spirit of other days, and find new pleasure in reviving forgotten hours of sport.

While in our own minds we may thus almost live once more days that are past, it is not so easy to share our memories with others. To lay hold on the fleeting impressions and give them the permanence of written matter is a chancy business, while to follow happily actual doings in the shooting-field may be reckoned as the hardest task that falls to the lot of the writer on sport.

All the raw material may well be there, the whole scene rising clear in the mental vision; the trouble only begins with the setting of it into words. The stuff must be put into small compass, else it becomes wearisome, so all must be

omitted that seems to throw no light or shade into the picture. The sentences must run on smoothly, the matter be readable yet vivid in style as befits a record of action; for this there must be a nice choice of words that shall yet read as though they were jotted down in haste by field and covert, and not laboriously compiled by the study fire.

Fully conscious, then, of the difficulties that beset my path, let me turn the pages of the game-book, and make some attempt to revive the memories of a few pleasant hours in woodland and by covert-side.

. . . . . .

The luncheon hour—but hardly the scene that the words would bring to mind in most memories of covert-shooting, for here are no tents or tables, no servants and smoking hot stews, no generous bumpers of port and insidious liqueurs, no coffee and cigars. Here the manners and customs of other days persist, to the shame of an over-luxurious generation, and few minutes of the short

December day are given up to the business of eating; for this is the last act in the prelude to the most historic rise of pheasants in the country, the famous Scarborough Clump, and the line has halted, as much to give the pheasants a much needed rest after being run half-way round the great park of Holkham, as with any thought of human refreshment. The guns stand lined out down a broad grass ride running across the wood of fine oak, ilex, and Scots fir, the deeper green of the evergreens standing out boldly in the winter sun against the ash tints of the underwood.

Lunch is dispensed by two boys—no striplings these, for in Norfolk 'once a boy always a boy' seems to be the rule, and these are gnarled and wrinkled veterans who will never see sixty again. The first carries a huge loaf of bread, half a cheese, and a canvas bag of raw onions; the gun draws out his knife, hacks off what he wants, plunging his hand into the bag for some onions, if he

has a strong palate. The second 'boy' bears a huge stone jar of Norwich ale, with an ancient black horn whose worn edge bears witness to long and honourable service; the thirst must be quenched off-hand, for others wait their turn with the horn.

Wholesome fare, that only the weak need supplement from private resources, rolls stuffed with good things from the sideboard at breakfast; all to be eaten with the loins girded and gun in hand, as hares keep breaking back and must be attended to, for the Earl, last of a grand old type of English gentleman, has strong views about any slackness in the shooting-field, and enforces a healthy discipline among his guests.[1]

To save time now, and trouble in picking up to-morrow, no birds are to

[1] The late Lord Leicester died in 1909, and those who knew him, know too that they will never see his like again. To say that, setting all questions of rank and riches aside, he was respected by all who knew him, whether prince or peasant, is perhaps to pay the most fitting tribute to his memory.

be shot going back, and young fingers itch to pull trigger as the old cocks come swinging back over the trees; but rules are not made for nothing at Holkham, and no one has serious thoughts of transgressing.

This is the critical hour of the day's manœuvre; in the few acres of wood in front of the line, anything from 1000 to 1500 pheasants are collected; there remains to push them over the road into the clump. The line moves on slowly; orders come to shoot any birds going back, and with increased noise of shooting, and stentorian shouts from the stout lungs of Norfolk beaters, the pheasants swarm across the open until the last is safely housed in the clump.

The guns are now lined three-deep across the open ground for the single rise of the day; while the keeper of the beat strips himself of coat and billycock hat, for though his chief anxiety is now set at rest, there is still plenty of work for him to do. He enters the clump alone from

the far side, and like Agag, treading delicately among the mass of pheasants, flushes them by twos and threes. Four times his red waistcoat has appeared through the bushes in front of the guns, only to flash round the corner, as its owner runs back to start through again, before all hands are called to the far side, and the last pheasant sent over the guns.

All this time there has been hot work outside, heavy shooting for those in the front line, better birds if fewer for the guns behind, while in rear of all, the occasional pheasant that has beaten all the three ordered lines of guns, must still reckon with the efforts of guerillas skirmishing in the background, where sundry gunners are allowed to take their chances of sport.

Once—it was not actually at Scarborough, but at the Old Common, always shot on the following day—we had the fun of seeing one of the crack shots of England having his eye wiped time after time by the wielder of a mighty

engine of destruction, his home-made cartridges charged with a liberal load of black powder. The birds were high enough and curling, but each time the sharp double report of the Schultze was followed by a roar and a burst of smoke, and down came the bird amidst tremendous applause from the circle of admirers who surrounded the local sportsman.

Norfolk pheasants have little reputation in the shooting world, but memories of Holkham coverts are among the most pleasant to recall; there was little fault to be found with the birds, especially if you were in one of the back lines; and there was the sense of taking part in a historic performance, under the keen, critical eye of a master of the game.

. . . . . .

The meeting of autumn and winter; an afternoon in late November, a day of blustering north wind, of flying clouds and changing skies, of transient sunshine and sudden scud of driving sleet and rain.

Cold withal, as we fully realized this morning in those open butts on the bare hillside above the woods, while we waited long for those few, short minutes with the great packs of grouse, which made such a novel and charming prelude to a day's pheasant shooting.

A pleasant valley, where Tay and Tummel meet far below us among the beeches and oaks, plough, pasture and stubble of the river's basin. The distant tops gleam white when the grey clouds lift, and even the lower, nearer hills are flecked and streaked with snow.

Here in the shelter of the great wood it is warm as spring, and though the clouds drive swiftly overhead, there is scarce a movement among the feathery tops of the tall spruces. As right of the line my stand is in a clearing, bounded half a gunshot away by ranks of veteran spruce which conceal the rest of the line of guns from view, and rising to crown the knoll behind, enforce a lofty flight on every pheasant who would pass this way.

Fifty yards in front a sheer face of as many feet of grey rock, a few ancient Scots fir and ash rising from the naked stone in curious fashion, their twining twisted roots all exposed to view.

Above the rocks a younger growth of birch and pine, in a setting of shaggy heather. Eastwards the ground falls sharply from the fir-needle strewn promontory on which I am standing, and one may look down over a wide sweep of moor and woodland, and follow each bend of the river to far-away Dunkeld.

Suddenly a woodcock starts into view far up off the top of the rock, plunges straight down, passing my head within a few feet. The swish of wings effectually recalls the wandering attention, but he has swung round a spruce and is lost to view before the gun can be brought to bear. Presently a blackcock—flushed far back by the still distant beaters—sails overhead at a lordly height, taking no notice of the salute his passage demands.

A long pause; a roe trips forward to

the summit of the rock, and stands at gaze, looking long on us down below, before turning back to bound away through the wood, her advent among the beaters greeted with a confused medley of sounds, which no discipline may serve to restrain. Another woodcock, swinging out across the open sky, collapses to a double shot, and falls far below in a tangled thicket. A bad bird to pick, for even if he has not lodged among the close branches, the lurking rabbit will probably seduce the dog from the somewhat irksome duty of hunting for a bird so little to his liking.

A single cock pheasant announces the opening of the real business in hand, and departs into space without harm or hurt. Obviously these are birds of some quality, with height, pace, and curl all to be considered before the gun can hope to get on terms with them. A thin stream of pheasants soon begins to wing its way from the warm young covert above towards the valley below. From where

"The Old Order Changeth"

the guns are standing, each pheasant is a tolerably high bird when he is still on his feet, and none of the usual devices of net or flag are necessary to make him fly well.

Some twenty minutes of right good fun—not so many pheasants as make the shooting distasteful, enough to give every one a fair chance of pretty shooting and to ensure that no one grows cold through enforced idleness; some fifty come crashing down through the spruce branches behind the line of guns, as many find their homes in safety, or with the shot in the wrong place sail down with wings set on a long slant, to be marked down and safely gathered by the keepers far behind.

A goodly sprinkling of woodcocks come forward, some a reasonable mark flying high and standing out black against the sky; others well-nigh impossible, dusky shadows threading a mazy path through the close-growing trunks. Once a stray cock grouse—one of that privi-

leged association of bachelors who dwell without the land of butts and beaters—whose voice had been audible in the earlier stages of the drive, protesting against this unwonted invasion of his chosen home and sanctuary, accompanies a hen pheasant in the passage perilous. Both fall together, and the heart rejoiceth over an unusual right and left.

To the stalwart Murray as he comes in with his beaters: 'You worked them splendidly, one couldn't wish for a better rise of pheasants!' 'A'm glad you're pleased,' answers simply the laconic Scot.

. . . . . .

Next morning a tearing north-easter with squalls of sleet and rain: inhuman alike to man and bird to ask the beaters to rouse the reluctant pheasant in the dripping woods. With noon came a break in the sky, and some of the younger members of the party with a few of the sturdiest beaters took the hill; an extemporized drive through a blown-out wood for black game and roe, another

over the nearest line of grouse-butts on the open moor above in a lashing shower of sleet; lunch eaten hastily in the shelter of some ancient larches, and so to the distant wood where the caper dwells.

My stand for the drive of the day was a small natural clearing in a wood of mighty spruce. All around chance-grown seedlings, striving upwards to fill the ranks of the forest; far above the wind swayed and soughed among the bending tops; below no movement and no sound, only the breathless silence peculiar to great woods. Alone with wind and trees, for the guns on either side are buried in the depths of the wood, and the beaters still distant, little effort of imagination would make of this wild spot a glade in primæval forest, till you might almost expect moose or bear to come crashing through the greenwood, or even to catch a glimpse of some creature of an earlier age stealthily regarding you through the tracery of low, hanging branches.

Five big, soft, brown birds drift across high overhead one after another—caper hens, disturbed at the far end of the wood and wandering about in somewhat aimless fashion, for three of them come sailing back from behind, each shadow as they cross the sun making me turn sharp round, expectant of nobler game.

A tiny party of grouse, probably flushed by some flanker outside the wood, swing across the edge of the clearing, lost to view before I can draw trigger: two sharp reports from the gun outside the wood followed by two little crashes in the trees—the drive has begun.

But the shots were untimely, for, half seen through branches and stems, a fine fallow buck that must have been coming forward to my stand, breaks away back and is seen no more. While still regretting his escape—not indeed for the fun of shooting him, but he carried a nice head, and two kinds of deer and three of moor-fowl (some one is sure to get a blackcock) would make

a notable variety in a single drive—a whistle from some flanker, and a great form glides into view, passing with strangely silent flight almost within arm's reach.

This is the hero of the occasion, easy enough to miss—as I can dolefully recall from our first meeting only two days past, when a fair open chance only resulted in a clean double miss, neither shot serving so much as to ruffle a single feather. This time—given the best place by a considerate host on purpose—the feeling that there must be no bungling about the business, and no more regrettable incidents to record is strong on me as the gun comes to the shoulder. A fraction of time to note how well the great grey bird stands out against the heavy green of the firs, a steady aim, and the single shot, winged with as set purpose of murderous intent as any cartridge ever fired in the land.

All's well; a determined jerk forward at the last moment has made up for the

probable lack of swing—so common a fault when shooting at an unusually large object with would-be singular care and accuracy—and the old cock lurches forward to crash down dead through the branches. While still debating whether it would be forgiven me to leave my stand, and look closer at my prize, there comes another warning whistle, followed hard by a second great cock, who clears the tops of the spruces to my front passing directly overhead. Two minutes ago he would in all probability have been missed, for though its a fair enough chance, still he is quite as high as one would wish, and the background of open sky makes it difficult to estimate the pace at which he is travelling, never an easy matter to judge when dealing with the unfamiliar flight of a new bird of chase.

But, the charm of apparent invulnerability once broken, the capercailzie proves to be no very difficult bird to kill, and a goodly lead with the gun brings the newcomer tumbling down to join his fellow,

landing on the ground with quite an earth-shaking thud. A few stray pheasants, wanderers from the coverts below, an unlucky woodcock chance shot through a thick branch, a sprinkling of snow-white hares—ludicrous travesty of protective colouring against the dark background—a roe that swerves and falls to the next gun, then the tap tap of approaching beaters, and I am free to gather the spoil. The high cock has split himself from breast to tail in falling, but is happily only a moderate specimen in any case; the other bears no trace of his death, and is a noble old veteran well-fitted to mount as a trophy of the chase.

No bad makeshift for a lost day with the pheasants.

. . . . . .

Here it is perhaps as well to set a limit on these random recollections, or they might run on to interminable length, so insidious is the path of reminiscence. There was firm intention throughout the writing of these pages to include nothing

that had no direct bearing on the subject; if these attempts at descriptive writing have given any hint of the joys of shooting, they have served their purpose, if not, then their brevity must stand as their only excuse.

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